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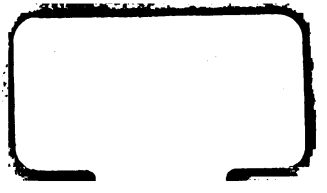
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LETTERS

ON THE

LAWS OF MAN'S NATURE

AND

DEVELOPMENT.



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LETTERS

ON THE

LAWS OF MAN'S NATURE

AND

DEVELOPMENT.

BY

HENRY GEORGE ATKINSON, F.G.S.,

AND

HARRIET MARTINEAU.

"But the commandment of knowledge is yet higher than the commandment over the Will: for it is a commandment over the reason, belief, and understanding of Man, which is the highest part of the mind, and giveth law to the will itself. For there is no power on earth which setteth up a throne, or chair of state, in the spirits and souls of men, and in their cogitations, imaginations, opinions, and beliefs, but knowledge and learning."—*Bacon.*

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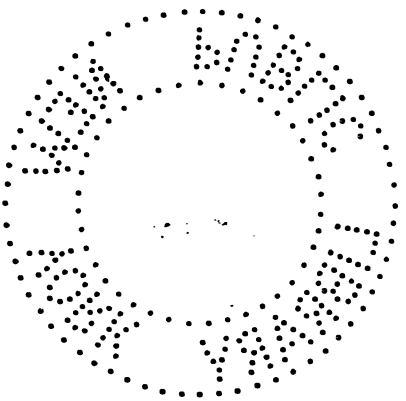
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PREFACE.

THIS book is in reality what it appears to be, — a correspondence between two friends. The responsibility for its publication is mine. For some years, I had been taking a stronger and stronger interest in Mr. Atkinson's views on a group of subjects which I had been contemplating from my youth up, with incessant curiosity, and, till of late, slight satisfaction. Last year, I asked him to permit me to inquire of him, in some sort of sequence, about his researches into the nature and position of the Human Being; and the replies I have received seemed to me to require of us both the discharge of that great social duty, — to impart what we believe, and what we think we have learned. I therefore suggested the publication of our letters. Among the few things of which we can pronounce ourselves certain, is the obligation of inquirers after truth to communicate what they obtain; and there is nothing in the surprise, reluctance, levity, or disapprobation of any person, or any number of persons, which can affect that certainty. It may

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be, or it may not be, that there are some who already hold our views, and many who are prepared for them, and needing them. It is no part of our business to calculate or conjecture the reception that our correspondence is likely to meet with. The one of us has earned, and the other has received, some knowledge, and both of us have thence come to entertain views which we value; and the first duty belonging to the privilege is to impart what we believe to be true.

It will at once occur to every considerate reader, that to establish by evidence and argument the facts and conclusions contained in these Letters would require many volumes. If we put out only one, its contents must be merely expository; and such, and nothing more, is the character of this volume. It has neither the compass, nor the order, nor the relative proportion, of a treatise. I believe that it has substance and connection enough to make it of value in its actual shape. Such as it is, we send it forth in the hope that we shall be corrected where we are wrong, enlightened where we are dim or blind, and sympathized with by those who estimate truth and freedom as we do.

HARRIET MARTINEAU.

AMBLESIDE, November, 1850.

MOTTOES.

"To generate and superinduce a new nature, or new natures, upon a given body, is the labor and aim of human power: whilst to discover the form or true difference of a given nature, or the nature to which such nature is owing, or source from which it emanates (for these terms approach nearest to an explanation of our meaning), is the labor and discovery of human knowledge." — *Bacon: Novum Organum*, Aph. 1, Book 2d.

"It is our office, as faithful secretaries, to receive and note down such (laws) as have been enacted by the voice of Nature herself: and our trustiness must stand acquitted, whether they are accepted, or by the suffrage of general opinion, rejected. Still, we do not abandon the hope that in times yet to come, individuals may arise who will both be able to comprehend and digest the choicest of those things; and solicitous also to carry them to perfection." — *Bacon: Anticipations of the Second Philosophy.*

"The true end, scope, or office of knowledge, I have set down to consist not in any plausible, delectable, reverend, or admired discourse, or any satisfactory arguments, but in effecting and working, and in discovery of particulars not revealed before, for the better endowment and help of Man's life." — *Bacon: Interpretation of Nature.*

"Concerning the publication of novel facts, there can be but one judgment; for facts are independent of fashion, taste, and caprice, and are subject to no code of criticism. They are more

useful, perhaps, even when they contradict, than when they support, received doctrines; for our theories are only imperfect approximations to the real knowledge of things." — *Sir H. Davy.*

"The state of the speculative faculties, the character of the propositions assented to, essentially determines the moral and political state of the community, as we have already seen that it determines the physical. Every considerable change historically known to us in the condition of any portion of mankind, has been preceded by a change of proportional extent in the state of their knowledge, or in their prevalent beliefs." — *Mill: System of Logic.*

"The deep philosopher sees chains of causes and effects so wonderfully and strangely linked together, that he is usually the last person to decide upon the impossibility of any two series of events being independent of each other; and in Science, so many natural miracles, as it were, have been brought to light, ... that the physical inquirer is seldom disposed to assert, confidently, on any abstruse subjects belonging to the order of natural things; and still less so, on those relating to the more mysterious relations of moral events and intellectual natures." — *Sir H. Davy: on Omens.*

"The Ancients, whose genius was less limited, and whose philosophy was more extended, wondered less than we do at facts which they could not explain. They had a better view of Nature, such as she is: a sympathy, a singular correspondence, was to them only a phenomenon, while to us it is a paradox, when we cannot refer it to our pretended laws of motion." — *Buffon.*

"It does not become the spirit which characterizes the present age, distrustfully to reject every generalization of views, and every attempt to examine into the nature of things, by the process of reason and induction." — *Humboldt: Introduction to Cosmos.*

"With regard to authority, it is the greatest weakness to attribute infinite credit to particular authors, and to refuse his own prerogative to Time, the author of all authors, and, therefore, of

all authority. It is not wonderful, therefore, if the bonds of antiquity, authority, and unanimity have so enchained the power of Man, that he is unable (as if bewitched) to become familiar with things themselves." — *Bacon: Nov. Org.*, Aph. 84.

"Moreover, in these mixtures of divinity and philosophy, the received doctrines only of the latter are included; and any novelty, even though it be an improvement, scarcely escapes banishment and extermination." — *Bacon: Nov. Org.*, Aph. 89.

"For if they mean that the ignorance of a second cause doth make men more devoutly to depend upon the Providence of God, as supposing the effect to come immediately from his hand, I demand of them, as Job demanded of his friends, 'Will you lie for God, as man will for man, to gratify him?'" — *Bacon: Interpretation of Nature.*

"It is to Philo Judæus that we owe the doctrine that nothing can subsist without certain properties. It is only the metaphysical theologians that have embraced the error that all activity and all action is owing to a spiritual being, and that inertia is the essence of matter." — *Gall.*

In regard to Astronomy, "Almost all its conclusions stand in open and striking contradiction with those of superficial and vulgar observation, and with what appears to every one, till he has understood and weighed the proofs to the contrary, the most positive evidence of his senses." — *Sir John Herschel.*

"The opinions of men are received according to the ancient belief, and upon trust, as if it were religion and law."
"Another religion, other witnesses, and like promises and threats, might by the same way imprint a quite contrary belief." — *Montaigne.*

"Is our faith on the sand or on a rock? Is it too brittle to bear touching?" — *Archbishop of Dublin.* 1850.

"Hobbes mentions the true revelation; but clearly shows he does not believe it. Hallam considers him an Atheist. I have

equal right to consider Bacon so. Descartes, Hallam says, professed a belief in the motion of the sun, to save himself with the priests. And Hobbes thinks Aristotle did not speak as he really thought. It is surely time all this lying and counter-lying should be put a stop to, or a help be rendered to so worthy an end, — that men's minds may expand as freely as any other growth of nature. But in our time, — no. The honey is not for us, but to work the cell; — to work in faith and hope, in the love of truth, and for justice' sake. This is enough; — enough for the strong. And for the weak, they should not leave their mother's side." — *Private Letter*.

"Add to the power of discovering truth, the desire of using it for the promotion of human happiness, and you have the great end and object of our existence. This is the immaculate model of excellence that every human being should fix in the chambers of his heart; which he should place before his mind's eye from the rising to the setting of the sun, — to strengthen his understanding that he may direct his benevolence, and to exhibit to the world the most beautiful spectacle the world *can* behold, — of consummate virtue guided by consummate talents." — *Sydney Smith: Moral Philosophy*, p. 94.

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LETTERS

ON THE LAWS OF

MAN'S NATURE AND DEVELOPMENT.

I.

INQUIRY FOR A BASIS.

H. M. TO H. G. A.

My dear Friend,

I rather think the reason why we have so much pleasure in talking over, and writing about, the powers and action of men, and the characters of individuals, is, that your observations proceed upon some basis of real science, and that I know that they do; and that thus we are talking to some purpose on the most interesting subjects, instead of theorizing without taking stock of our facts on the one hand, or merely amusing ourselves with desultory observations on the other. I want, however, to look closer into the matter. I want to know precisely what your scientific basis is, instead of merely profiting by your having one, and having a general notion how you came by it. I want you to tell me, with great particularity, (if you will,) how you would have one set about the study of the powers of Man, in order to understand his nature,

and his place, business and pleasure in the universe.

For thirty years past I have been disposed to this kind of study; and it is strange to think how many books I have read, and how often over, and what an amount of hours I have spent in thinking, and how many hundreds of human beings I have watched and speculated upon, without being ever, for one moment, satisfied that I knew what I was about,—for want, I suppose, of some scientific basis for the inquiry, and of some laws manifesting themselves in its course; — laws on which one might rest, and to which one might recur, when in perplexity how to proceed. I am sure I do not wonder at scientific men sneering at metaphysics, if the case be at all as I suppose it: — that Natural Philosophy and Mental Philosophy are arbitrarily separated; — that the one is in a regenerate state (thanks to Bacon), and the other in an unregenerate state; — and that we can no more get on in Mental Philosophy without an ascertainment of the true method of inquiry, than the men of the middle ages could get on with Natural Philosophy (except in the departments of detail), till a man rose up to give us a *Novum Organon Scientiarum.* And why Mental Philosophy is not yet included among the sciences which are benefiting by the *Novum Organon* of Bacon is a thing that I am quite unsatisfied about. I do not mean that I at all wonder that the greater number of students have recourse to unsound methods; because we see that the fact is so with the greater

number of physical inquirers, — the true followers of Bacon being few indeed among Natural philosophers, as they are called. My wonder is, — not that there are few so-called Mental philosophers who use or even advocate any experimental method of inquiry into the science of mind; but that there seem to me to be none. If I am wrong as to the fact, tell me; and pray point out where I may find such, if you know them to exist.

I am well aware what the answer of metaphysicians to this difficulty of mine would be. They would plead the totally different and incompatible nature of the two regions of inquiry, and therefore of the method of penetrating those regions. But this is exactly what I am not satisfied about. When I look at the course of metaphysical inquiry from the beginning to this day, I see something very much like the course of physical inquiry from the beginning to Bacon's day: and I am not sure that Bacon may not yet throw down the barrier between the two regions, and make them one. When I look back upon the two paths, it seems to me that I see the same Idols set up for worship on the wayside; and I hear the same excuses for wild theorizing in both departments, — that spiritual agencies are at work, which can be recognized only by each man for himself, by means of a special spiritual sense of which no one can give an account. Now, Science has disabused us of our blinding and perplexing notions of spiritual anti-types of material things, and of spiritual interference in material

operations; and we have arrived at the notion of chance-excluding Law in the physical operations of the universe. I want to know why it is not possible for us to pursue the same process in regard to Mental Philosophy; — why we are to take for granted that the two regions of science are so unlike, that the same principle of inquiry is not applicable to both; — and if so, what we are to do next; for we cannot remain forever as hopelessly adrift on the sea of conjecture about the truths of Mental Science as we are now. I do not ask you, however, to make an express reply to every thing I may put in the form of a question, — as above. If you will tell me how you would set to work to ascertain the powers of Man, in order to understand his position and destiny in the Universe, that will include an answer to my speculations on past methods of inquiry.

Your ideas will descend upon this locality in curious contrast with some which are to be found here. I like to talk with the gardener, and the cowherd's wife, and any workman who may relish a bit of talk on Sundays, on their notions of how body and mind should be treated, and what they are living for, and what is wrong and right in morals. There is much amusement and instruction in hearing them lay down the law about health and duty. And then, when I meet a poet here, and a scholar there, and a Quaker or Swedenborgian religionist somewhere else, it seems to me that I have been carried back some thousands of years, to the

time when science was composed of dreaming, and when men's instincts constituted the mythology under which they lived. It is all very interesting, however, and all worthy of respect. To us, who are in search of facts, there is no dream of any intellect, no dogmatic assurance, no stirring of any instinct, which is not full of interest and instruction. But I shall be glad of your answer to my question, as guidance in using the material furnished by my neighbors.

II.

PROPOSAL OF A BASIS.

H. G. A. TO H. M.

My dear Friend,

By all means let us go into this inquiry and explanation. Nothing will give me greater pleasure; for certainly it is most important that we should form a true estimate of man's nature, and ascertain the real basis of a science of mind. Men have been wandering amidst poesies, theologies, and metaphysics, and have been caught in the web of ideal creations, and have to be brought back again to particulars and material conditions; to investigate the real world, and those laws of being and action which are the form and nature of things,

and the phenomena which they present, as they are here, within us and about us in reality and in truth, and not as we would fancy them to be. There are not two philosophies, one for Mind and another for Matter. Nature is one, and to be studied as a whole. "There is nothing in nature," says Bacon, "but individual bodies, exhibiting clear individual effects, according to particular laws." * Instinct, passion, thought, &c., are effects of organized substances: but men have sought to make out a philosophy of mind, by studying these effects apart from causes, and have even asserted that mind was entirely independent of body, and having some unintelligible nature of its own, called free will, — not subject to law, or dependent on material conditions; though a man has no more power to determine his own will than he has wings to fly. Of course, I need not say to you that these popular notions are mere delusion. I cannot tell you how odd it seems to me to have to assert such a self-evident fact. All the conditions of man and mental peculiarities are now traced to physical causes and conditions, exhibiting clear determining laws. The instinct of animals and the mental condition of men are all phenomena exhibited as a consequence of the bodily condition, and the influences which have been acting upon it. This is now as clearly understood as the physical conditions and cause of the rainbow and of the thun-

* Novum Organon, II. Aph. 2.

der-storm. What men are for the most part believing now is a kind of insanity; but, as Bacon says truly, "those who resolve not to conjecture and divine, but to discover and know; not to invent buffooneries and fables about worlds, but to inspect, and, as it were, dissect the nature of this real world, must derive all from things themselves."

We know nothing fundamental of nature, nor can we conceive any thing of the nature of the primary cause. We know not, nor can we know, what things really are, but only what they appear to us; and the relations of their appearances. The form of these relations we term Law. Whatever is must have a form of being and action. It cannot be what it is not; but must be subject to the form or law of its constitution. Even supposing the mind was an entity separable from the body, and acting independently of body, it must still have a nature of its own, and be determined by the form of that nature; and this form of being and action we term Law. Nothing can be of itself, or change its condition, unless it be acted upon by something else. A man cannot of himself, or by his will, become a tree, any more than a triangle can by any means become a circle: nor are more causes to be admitted than are sufficient to produce any particular change or effect. Hence we require no supernatural causes when we can recognize adequate natural causes inherent in the constitution of nature. The phenomena of instinct and reason

are no exception or anomaly in nature. The different characters of men arise from the differences in the substance and form of their being; just as it is with other animals, and with plants and stones. For every effect, there is a sufficient cause; and all causes are material causes, influenced by surrounding circumstances; which is nothing more than matter being influenced by matter. I observe that drunkenness and madness, idiocy, genius, sleep, dreams, murder, charity, are effects, the consequence of material conditions; absolutely and wholly so. If I pour a bottle of wine down a man's throat, he becomes drunk. If I press a splinter of bone into the brain, madness ensues. I want no devil to account for these effects. Again, if I place a naturally good disposition under favorable circumstances, goodness is invariably the result. If I place a naturally ill-disposed person under unfavorable circumstances, evil is necessarily the result. I want no good spirit in the one case, nor evil spirit in the other, to account for those facts, any more than to account for geese being geese, and green gooseberries being acid, and those which have ripened by exposure to the sun being of a delicious flavor. We now can perceive precisely why men think as they do; how they are deceived by their own thoughts and feelings: otherwise, their seeming total apathy, — their inability to comprehend the nature of science, and the necessity of universal law, would make us despair of progress.

The reason why you are interested in my thoughts and opinions is, not that I have more ability than others, but that I have endeavored, under favorable circumstances, to renounce all idols and superstitions, and have drawn close to nature, to examine into causes. In material conditions I find the origin of all religions, all philosophies, all opinions, all virtues, and "spiritual conditions and influences," in the same manner that I find the origin of all diseases and of all insanities, in material conditions and causes. I have followed Bacon's method, because there is no other that can lead to any discovery and practical results, or represent nature. I have but one earnest desire in life, which is to acquire knowledge; and a knowledge of human nature in particular, — that being the most important and the most needed. And I would freely utter, on all occasions, what I know and believe, honestly and without reserve, or regard for the opinion of a world which is full of superstition and hypocrisy on the one side, while on the other we see the mental powers of men crushed by excessive labor, or excessive indolence and indulgence.

Man is every where against his fellow-man, and every nation is ruled by the sword, or other symbol of force, and none by knowledge and virtue. No moral principle or religious system or belief will elevate men and set them free, except such as is based on a knowledge of causes, and the result of a true science of human nature. This position I think we may stand on, as upon a rock, "and thence

observe the wanderings up and down of other men." But I do not wish to dispute with any men, about their belief or their morals, or their laws of expediency; for I say that all the systems of the whole world are wrong; — they being all founded on error in the ignorance of natural causes and material conditions. I have nothing to say to any, but that we must turn aside and begin afresh, from the beginning. What use is there in disputing with the Mohammedan about his prophet or his harem? or with the Roman Catholic about his saints and his transubstantiation? or with the English Protestant about his dull formalism, his services, and his worldly pride, and vulgar regard for wealth? We must begin at the beginning, and exhibit the inherent causes of all the various beliefs and passions which have so long triumphed over truth and Man's better nature. We must exhibit the real, fundamental and material causes of men's thoughts: and out of a knowledge of human nature will grow a wisdom and revelation of principles which will revolutionize the world, and become the guide of man in legislation and education. Let us not assume any thing, but interpret the book of nature. Thus may we lay hold of the Science of Human Nature: and till we recognize this science, we live in a barbarous and dark age, and have no health in us.

III.

PREPARATION OF THE GROUND.

H. M. TO H. G. A.

YES, — the reason why I want to understand your views is that which you assign; — that you have abjured idols, and come with a free mind to the study of a subject which is rarely entered upon from the beginning. It appears to me that men come to the subject with antecedent notions of "dignity of origin" for man; with words upon their lips about man being made in the image of God; and then, in the fear of impiety, if this notion is invaded, they lose their freedom, and desire to find the truth lying in one direction, rather than another. Now, from the moment that a man desires to find the truth on one side rather than another, it is all over with him as a philosopher. I doubt whether I have ever met with any one but yourself who was perfectly free from such leaning. I have sometimes supposed that I had met with a truly impartial inquirer, — judging him by the sacrifices he had made for his convictions. But, sooner or later, out it comes! He lets out, in one connection or another, that he should be sorry to believe this or that, which he has not yet the means of fully comprehending. He may have gone further in free inquiry than his neighbors, and he rejoices in what he has attained; yet, not the less does he pity those

who have outstripped him, as the brethren and friends whom he has outstripped are pitying him. He says that his brethren and ancient friends cannot judge for him, because they have never been in his state of mind, — have never looked from his point of view; and he straightway forgets that this is precisely his own position with regard to those by whom he is outstripped. This pitying, this mutual judging, is so wholly incompatible with an effectual pursuit of truth, that I am concerned to hear it going forward on every hand, — concerned to see that you are perhaps the only person of all my acquaintance that is altogether above it. I dare not say that I am. I can only say that I ought to be ashamed if I am not, for I have had some blessed lessons on this matter. Feeling, as I do, daily comfort in the knowledge of some things which I should once have shrunk from supposing, it would be weak, — as foolish as cowardly, — ever again to shrink from knowing any thing that is true, or to have any preferences whatever among unascertained matters of speculation or fact.

As to the notion about dignity of origin that inquirers bring with them as their first misleading partiality, — it seems to me premature, in the first place. What we want to know is what our powers are, and how they work: and it would be vitiating the research at once to conclude, on moral grounds, against admitting evidence of physical fact. Such kind of objection appears also to be worse than premature; even foolish. Surely it is the quality

of the powers alone which can determine the quality of their origin: and if we set about objecting to the universal law, or to any of its applications, whereby great things invariably issue from small beginnings, we may safely conclude that it is our notion of dignity that is wrong, and not any one application of that universal law.

For me it is enough that I am what I am; — something far beyond my own power of analysis and comprehension. By what combination of elements, or action of forces, I came to be what I am, does not at all touch my personal complacency, or interfere with my awe of the universe. If, because I can at this moment think abstractedly and feel keenly, I abjure an origin in matter which cannot think, and forces which cannot feel, I cannot reasonably stop short of despising myself for having once been a babe, "mewling and puking in the nurse's arms." But it is enough to say that we are satisfied with the truism, — "Here we are! We are what we are, however we came to be so."

As to the great point of controversy between you and the holders of popular views and language, — the question whether there are two methods of access to knowledge of man's nature open to us, or one, — I think the *onus* rests with the holders that there are two, to prove their point against him who declares that one suffices. You are satisfied with observation of phenomena manifesting themselves through matter. Others insist that there is also an interior consciousness which teaches us

things not only unattainable by other means, but bearing no relation to knowledge which comes by any other channel. We deny, for our part, having any interior consciousness which informs us of any spiritual existence antagonistic to, or apart from, matter. If we once fancied we had, we have learned that it was through an ignorant and irreverent misapprehension of the powers and functions of matter. We have a right to require evidence of their assertion from those who say that man is endowed with such a means of knowledge of his origin and constitution. Such evidence, however, can never be had. All declare it to be impossible; we, because we are confident that it does not exist; and its advocates because facts of consciousness are not provable. They pity us, as Mr. Newman does, in his book on "the Soul:" and we are happy in having open before us (and in being free to follow it) a single path which will surely lead us to what we want: — happy and satisfied to agree with Bacon that "all things are delivered in matter," and that "we must bring men to particulars."

We agree that we know only conditions. We agree that we will not go a step beyond what we know. We abjure dreams, whether inbred or caught by infection. We must be sure of the assent of our understanding at every step of the inquiry.

Thus is our ground agreed upon. You must now, if you please, do as Bacon bids you, and "bring me to particulars." You must exhibit to

me some of those conditions which are all we know. We must try to put away that shadow of ourselves which we once took for a spirit, and which we now know we had no right so to pronounce upon. If we cannot set ourselves back to the beginning of our reflective existence, and trace the whole course of our ideas and experience, you can teach me much of that particular department of matter through which Mind is manifested.

At which end will you begin? Will you indicate to me what you conceive to be the powers of living beings, and trace them to their origin in the brain? Or will you lay open the brain before me first, and follow abroad the resulting mental actions, till we are stopped by the limitations of our knowledge, — however well aware that there is the infinite field of the unknown lying beyond?

I am not a whit alarmed at that declaration of yours, "that all the systems of the whole world are wrong." Sweeping as it appears, and presumptuous as many might pronounce it, it only shows you to have gone one step further than other people. Every body thinks that all the systems but one of the whole world are wrong; that one being the system that he upholds. At the same time, I believe you are more modest than they, in as far as you have no system to propound, but only an inquiry to propose.

expression of the brain in action; as heat and light are of fire, and fragrance of the flower. The brain is not, as even some phrenologists have asserted, "the instrument of the mind." When a glass of wine turns a wise man into a fool, is it not clear that the result is the consequence of a change in the material conditions? The thoughts and will are changed. Another glass, and even consciousness is laid at rest — no longer exists; — and hence, such existence is clearly but a temporary and dependent condition; — as much so, as light or heat, fragrance, beauty, or any electric or magnetic phenomena. The same reasoning which induces the conclusion that the brain is the instrument of the mind, must force a consistent man to conclude that the steam engine is not the machine producing, but the instrument of that which is produced by its action; or that the galvanic apparatus is the instrument of a galvanic will or power. Men turn nature topsy-turvy, — take effects for causes, to suit their fancies; — in defiance of reason, and of all clear and true analogy. Shall we suppose that the music plays itself, and "uses the instrument to show forth its powers?" — not the powers of the instrument, but its own powers? Shall we suppose a spirit not the growth of the body, but got there we know not how, — all manifest imperfections being only the imperfections of the instrument? — that all spirit or mind is, in reality, pure equal? and, by the same reasoning (or conclusion without reasoning), are we to imagine the

"great spirit of the universe" all perfection? and that all evil, pain, blight, death, &c., are the defects of the instrument, Nature? It does not appear to me that such assumptions would support those notions about free will, and some other matters, notions absurd in our eyes, which they are adduced to uphold. When men desert nature, and neglect fact and reason for the imagination, they are sure to entangle themselves in their own web. How far a man does resemble an instrument will, I think, be better seen in contemplating the facts of phreno-mesmerism. There, any doubt which might remain in regard to the mind's independent action must, I think, be swept away, and the law of dependence be exhibited as clearly as in regard to all other physical fact.

Of course, men do not, at first, receive willingly the intelligence of this inestimable truth, of man being wholly subject to law and material conditions. Objections arise, in opposition to new truths, at every step of the world's progress; for error is the first growth of the infant life of the world; but those who study the laws of mind, and trace the history of objections and errors back to their parentage, find interest and instruction in all conditions of mind; — in investigating the nature of the blight of prejudice, as well as in enjoying the flowers of truth. The bigot loathes every newly-developed truth which interferes with his assumptions and self-endeared views; but the morrow comes, and statues are raised to those who were per-

secuted in their time. The new philosophy which looks so dark and cheerless, at first, as to make the youthful poet exclaim, "Philosophy would clip an angel's wings," becomes, ere long, the guide and charm of his life.

We must keep in mind what is the scope of observation of the metaphysician in studying his consciousness, which, irrespective of the errors to which he is necessarily subject, is the reflection of what are but effects, and the mutual relations of such effects. It is a kind of phantasmagoria, varying according to the nature and opinions of each observer, and not a philosophy at all. *Philosophy is the observation of effects in relation to causes, in order to the discovery of the laws concerned.* The results of the imperfect method are such as were our perceptions of light and colors, before there was a science of optics; that is, previous to the tracing of the phenomena to their material causes; when the rainbow was thought to be a mystic sign in the heavens. The observation of mind is now at this stage of progress. It appears to thousands what the rainbow was supposed to be a few years back; a thing out of the ordinary course of nature, — having a supernatural cause and a special end. But we are now aware that the rainbow phenomenon is a necessary consequence of the laws of light, which operate universally. I feel almost ashamed to offer illustrations of what seems to be such simple and clear matter of fact: but it is necessary to my subject, though not perhaps for you. I will not now,

however, detain you longer, but invite you to the consideration of the brain and its parts, in relation to mind, and its several faculties.

We perceive that the body is an independent whole, a unity made up of dissimilar parts, each part having its distinct office and relation to other parts, and to the whole. So, likewise, is mind a unity, divided in like manner. The brain is the organ of the mind; and each part has its special function, and its relation to the rest, and to the wants and conditions of the body at large, or to external nature. Even Dr. Sharpey, in his lectures at the London University, admits that the brain has special functions; but while he is so particular in explaining to his pupils the nature of the facts on which the different views (whether he approves them or not) have been founded, in relation to every other portion of the nervous system, on coming to the brain he actually omits to explain the facts from which Gall's views are derived; — a curious instance of the operation of prejudice on a mind which may be otherwise working well! — Plato, Aristotle, Democritus, Montaigne, Bacon, and a host of others, have considered that the different faculties of the mind occupy different parts of the body: but they have generally erred from making causes out of mere sympathetic effects, in the heart, stomach, liver, &c.; and, again, from not having discovered the means and right method of investigating the subject with success. Gall was the first to discover a clew to the difficulty; to that which

Socrates thought important; but so difficult and profound as to require "a Delian diver" to find it out. Gall discovered the relation between the development of the brain and the several faculties of the mind, and demonstrated the true method of dissecting the brain by tracing out the origin and course of the nerves and fibrous structure; the common method being to slice it through, as if you were cutting up a turnip. Sir Charles Bell, by careful investigation, was enabled to exhibit the fact of there being distinct nerves for the offices of motion and of sensation; thus demonstrating a general truth already inferred by Gall and Spurzheim, and confirming the fundamental principle of their philosophy.

Gall proved that each faculty of the mind was a consequence of the action of a particular portion of the brain, and thus laid the foundation of a true science of Mind: but though the principle be correct, that, other things being equal, size is a measure of power, his method of observing had its limits, owing to the difficulty of observing the size of parts with accuracy; and more particularly with regard to those portions of the brain not in contact with outward portions of the skull, or with the surface exhibited in the living head. Some help was sought in observing brains after death: but is presented other difficulties, and did not avail uch. The study of abnormal conditions of ain in relation to abnormal conditions of mind as also resorted to; and experiments were made

by injuring, irritating, or destroying certain portions of the brains of living animals: and comparative anatomy was put to the test. But very little has been ascertained by these last methods, beyond establishing the general principles of the science. However, the several means must be resorted to as helps, just as we require the various senses to correct and confirm the impressions of each. The more we extend our knowledge, the more shall we be able to avail ourselves of the different means of confirmation: for it is essential to have established certain fixed points as landmarks, or our experiments will present to us nothing but uncertainty and confusion. Very little had been ascertained by these various means, even after nearly half a century, beyond the original discoveries of Gall, with a few additions by his pupil and fellow-laborer, Spurzheim.

On first looking into Phrenology, I felt the want of some additional means of observation, and the unsatisfactory and imperfect condition of the science. I found phrenologists to be, for the most part, ignorant of anatomy, and of the labors of philosophers, and resting with the same confidence and presumption on their thirty or forty organs as some others do upon their thirty-nine articles of faith. I am not at all surprised, therefore, at the reception Phrenology has met with from the scientific world; for it was easy to reject the whole where there was really so much error. Phrenologists were dogmatizing and fortune-telling with strange incaution,

and disgusting people by their presumption and blundering, while the subject was yet in its infancy, and all were professors and few were students at the very commencement of the inquiry. But there are difficulties and imperfections and errors in all sciences; and over-confidence, and hasty theorizing, and system-making: but when, as Bacon wisely says, men dogmatize and lay down the principles of a science in its infancy with a show of completeness, it may add to the glory of the professor, but will not leave the science in a state of growth. Phrenology has been a glaring instance of the evil of making too great a show of exactness and method.

I will next explain to you what has occurred to me in my investigation, and what appears to me to be the principle of the general arrangement and division, etc., of the faculties. In the brain is cast in stereotype, as it were, the whole nature and philosophy of man; and in a language which exists for all nations and for all times. It is the most wondrous structure, and the most beautiful in arrangement, that men can contemplate. May we approach the subject with reverence, and with a due sense of its importance and of our own inability! and be guarded that in seeking truth, we assume not something which is false; always being regardless of the opinions of men, and however vehemently they may say "No," so long as Nature whispers "Yes."

V.

INQUIRY ABOUT THE STRUCTURE.

H. M. TO H. G. A.

WE are coming to the pith of the matter now. When people speak of the brain as "the instrument of the mind," I want them to tell me whether they think the dog, and the bee, and the ape, have each a mind which puts the brain in operation: and if so, whence it came, and whither it goes. You remember Scott's dog, which somehow attacked or alarmed a certain baker; and how this dog slunk into a corner whenever his master spoke of the adventure, whatever might be the tone of voice or the artifice with which the story was introduced; and how, when the upshot was told, — "and the baker was not hurt after all," — the dog came out of his corner, frisking and joyful, and barking merrily. Now, this creature evidently felt shame and fear, and consciousness of self, relief and joy. And, again, when the monkey puts the wig into the boiler, and hides the plum-pudding, and then gets out of reach of punishment, as soon as any one goes near the boiler, — here is an exercise of several faculties, besides the most prominent ones of imitation and consciousness of self. Will any one say that these creatures have a separate mind, which uses the brain as a manifesting instrument? If so, what is the evidence? and how do we know

that these animals are not of a nature equal to man, but furnished with a smaller apparatus of brain? If not, why suppose man to be of an essentially different make from them, while their powers are, as far as they can be traced, absolutely analogous?

In these instances, the point of most importance appears to me to be the consciousness of self indicated by the dog and the monkey. I am constantly told that this consciousness is an attribute of the human being alone; whereas I cannot see how the jealousies, the vindictiveness, the moral fear, the love of approbation, and the forecast of brute animals, can be exercised without a sense of the Ego. We know but little of the powers and experience of brutes, even as the dog knows little of the experience of the cat, or the bird of that of the frog: but what we do know indicates consciousness as clearly as sentience.

As for how any faculties exist at all, we are so absolutely ignorant, that we may fairly pass over any objections to Thought and Feeling being results of brain, from the impossibility of explaining the How. When we know how any thing else is produced, it will be time enough to require explanations of this. In the old ages of Geology, before there was animal existence, there were electric lights, and aroma from vegetation, and solemn music from winds sounding through vast cane brakes, and among clattering or swinging palm and plantain leaves: but there was then no sentience to grasp and appropriate these products. When the sentience

was provided, it probably only enjoyed. After more ages, consciousness followed upon the sentience; or, if consciousness came with the sentience, reflection followed, and the results of material action were naturally, but ignorantly, attributed to preternatural agency; as you observe of the rainbow. Is there more ground (in these days of our physiological ignorance) for our supposing mental results to be of a spiritual origin than there was for the first half dozen men to suppose lightning to be a spirit, and the harp-music of the pine forest the voice of a spirit, and, in short, all intangible matter and material effects to be manifestations of spirit? I cannot see how we can be justified in falling into such assumptions, with so many ancient warnings, and such vast modern scientific discoveries before our eyes.

Show me, therefore, how we are to set about the study of the structure and functions of the brain, and what we really know of them. I have seen for myself, by the actual examination of the brains of the dead, how great was the folly of slicing them through, instead of tracing out their convolutions and compartments; a folly even greater than that of slicing through the muscles, if the view was to ascertain their whole structure and use. I have a distinct idea of the appearance and general form of the human brain. I now look to you for an account of — not what one may find arrogantly mapped out in every manual of phrenology, — but what you conceive to be clearly established, what

conjectured, and what merely hinted, up to the present time. I hope to obtain much more satisfaction from you than I have ever got from all the metaphysicians I have read. As you say, they have regarded only effects, and the relation of those effects to each other, while the effects themselves can hardly appear alike to any two observers: and that the true philosophy that we want is the relation of these effects to their causes: an investigation which can never be made while men take for granted that the real agent is, in each of us, an intangible Mind or Spirit, whose nature and qualities are not knowable. It is really wearisome to read theories by the score, all unsupported by any thing that can be called evidence, and descriptions and so-called analyses of faculties whose nature and origin are not even looked for, and whose management and control cannot therefore be provided for. You will teach me better. You will open the matter to me as if you were going to treat of the eye, — showing me the structure of the ball and the nerve, and what share of the brain it appropriates; and then how the laws of optics bear upon it; and then, the mental facts of vision, — with some curious secrets that I know you hold thereupon. Now then, — what is our brain?

Yes, indeed, we feel reverently in regard to this research. The true ground of awe is in finding ourselves what we are; not in dreams of how we came to be what we are. I suppose all we know is, that every thing occurs and proceeds by immu-

table laws; and the more this fact strengthens our reliance, the more it must enhance our reverence. We are what we are, however we came to be: and what we are is too great for our present selves to know.

VI.

EARLY DAYS OF PHRENOLOGY.

H. G. A. TO H. M.

"WHAT is the brain?"

The brain is the organ from whose action arises all that class of phenomena which we term Mind: in which I include all our sensations, perceptions, emotions, judgments and intuitions; consciousness, will, and certain forces which tend to regulate, stimulate and control the other functions of the body. This, you perceive, is giving to the brain a larger sphere of action than is assigned to it in the works on phrenology. I differ also from phrenologists in this; that I consider consciousness, will, pleasing or painful sensations, &c., to be distinct faculties, and the functions of special organs. You know the brain; I need therefore only remind you that there are, in fact, two brains: the cerebrum occupying the larger portion of the skull, and the cerebellum in a separate compartment, beneath the posterior lobe of the cerebrum, occupying the space

behind the ears. It has happened to me to be able to demonstrate that this lesser brain is not what Gall supposed it to be; that is, the organ of the amative propensity: but the organ of that class of powers which might perhaps, for distinction's sake, be termed the physico-functional powers; or those powers having a more immediate relation to the bodily conditions — the muscular power, and other purely bodily relations, secretions, &c. But, whatever importance I may attach to the knowledge of the functions of this and of some other parts, I trust you will not consider it presumption in me, or that I wish in any way to force these views upon others, or to take from the value of their labors. What I have done I attribute to the light thrown upon the subject by the new means I have discovered and made use of, rather than to any superior ability or acuteness in myself. I am what I am; a creature of necessity; I claim neither merit nor demerit. I wish only to interest others in this inquiry, that they may prove, or, if they can, disprove, what I announce. The proofs are open to all; the means in every one's hands; and it is much better to test novel matters by experiment and observation, than to try to reason away alleged truths, in ignorance of what nature may have to say upon the question.

You know that most of the parts of man are double; that he is very nearly a double being; and that the cerebrum is divided into halves, with corresponding organs on each half. It is a fact, also,

that some organs are often more developed on one side than on the other, and that generally only one side is in action at a time. This is one reason for the variations which occur in the same character. It seems certain that mind (or the conditions essential to mind) is evolved from the gray vesicular matter which forms the external layer over the convolutions, and exists in certain other parts where a supply of power may be requisite. There is no perceptible separation, or distinction in the condition, of the organs; nor, considering the nature of mind, working together, or evolving results in combinations, could we in reason expect that such would be the case; but there may, nevertheless, be distinctions, — material distinctions, as real as those of colors, which yet are blended together in the spectrum. You know that there is a division between the halves of the cerebrum to a certain depth; and that there are convolutions on the sides of these dividing surfaces, and beneath those which appear on the surface; and that under these, again, is the arch of nerve fibre joining the halves; beneath which, again, are other parts which unite the different portions — not very unlike the reservoirs, machinery, and cross lines at a great railway terminus, where all seems confusion to any but an engineer, but where the whole is acting with the nicest precision and adaptation. You know, also, that there are certain convolutions on the under surface of the cerebrum, particularly of the posterior lobe, immediately over the cerebellum, and of the

anterior lobe, lying on the plate of bone, which forms a covering over the eyes. In the deep fissure called the Silvian fissure, on the side, there are also convolutions which do not manifest themselves on the surface. It is very evident, then, that the functions of all these convolutions are not to be ascertained from observations made on the exposed developments of the surface, which give the internal shape to the skull, and may be observed on during life. The cerebellum is sufficiently exposed at the surface to allow observations of measurement to be made during life to a certain extent; and had observations been made after Gall's method, or by Gall with a freer suggestive faculty, the whole cerebellum would never have been appropriated to the single function of manifesting amative feeling. But you see what matter there is before us, and how impossible it is for me, even if desirable, to go into any full particulars.

The organs of the cerebellum are double, though the brain is not divided in the centre as the cerebrum is. There are convolutions of a smaller and somewhat different character from those of the cerebrum; and these convolutions are separated into several masses; and there is also a separation between the upper and the under half of the convoluted surface of the cerebellum. We could hardly suppose such separations to exist were the whole mass of this lesser brain the organ of one faculty; and, in consequence, different physiologists have suggested what they supposed might be the func-

tion, but without agreeing, or being able to confirm their theories, or to arrive at what appears now to be the fact. You must remember that the two brains are united by cords of nervous matter, and that both brains communicate down the spinal cord, and so to the whole nervous system. You know what Sir Charles Bell discovered of each nerve having its special function; that is, that no nerve has two functions; that there were distinct nerves, for instance, for motion and sensation; and how, being ignorant of all that Gall had done, he opposed phrenology; which science does but extend the principle of his own discoveries into the brain; its principle being, that each faculty of the mind is the function of a special portion or organ of the great nervous centre.

Anatomists had toiled in vain to make out the uses of the brain: and then, in the study of Comparative Anatomy, there were obvious difficulties in the way. Such comparisons could only be understood and found available in an advanced stage of our knowledge, when we had arrived at certain established principles to guide us, and certain ascertained points to start from; except merely for observation on general progressive development in relation to functional display. Sir Charles Bell thought the only way was to ascertain the functions of the nerves, and trace them to their origin in the brain; and thus infer the office of the parts of the brain: and this had some show of reason in it. But alas! what appears most reasonable

beforehand is not always found to be either available or true, while that which is supposed to be most unreasonable or even impossible, often turns out to be the more appropriate, simple, and useful truth. But — not to detain you — it will be sufficient to say that Sir Charles Bell's method failed altogether; and he retreated from the citadel, once more to devote himself to the outworks; and, with the exception of some confused results, relating to motion and common sensation, obtained by irritations and vivisection, the physiology of the brain remained at a stand-still, while metaphysics, rising upon this ignorance, were, and still are, perplexing the world with endless and contradictory theories; and many of those who have accepted phrenology as a fact have endeavored to explain away its simple reading, to favor some preconceived opinion. Science was advancing in the departments of Chemistry, Geology, Electricity, and Magnetism; and with good and useful results; while Physiology and Mental Philosophy stood still. That which was united in nature was separated by human reason; and how could either advance? But we find in Mesmerism, which is, as it were, the mind of phrenology, renewed light and hope, and another means of investigation; and apparently the only one adapted to the requirements of the case. Under Mesmerism, you know, we are enabled to observe at leisure all those abnormal states which in their spontaneous conditions have astonished and perplexed, and, I might add, have de-

luded or guided the world in all ages. However, the nature of Mesmerism, and the relations of its effects to these phenomena, are not to our present purpose.

I observed that under the influence of Mesmerism some patients would spontaneously place their hand, or rather the ends of the fingers, on the part of the brain in action; and these were persons wholly ignorant of phrenology. In some cases, the hand would pass very rapidly from part to part, as the organs became excited. If the habit of action was encouraged, they would follow every combination with precision: and if one hand would not do, they would use both, to cover distant parts in action at the same time. I was delighted with these effects; but did not consider them very extraordinary, because I had been accustomed to observe the same phenomena in a lesser degree, in the ordinary or normal condition. I know some who, on any excitement of their Love of Approbation, will rub their hand over the organ immediately. Others I have observed when irritated pass the hand over Destructiveness. I have observed others hold their hand over the region of the attachments, as they gazed on the object of their affection. I have watched the poet inspired to write, with the fingers pressing on the region of Ideality; and those listening to music leaning upon the elbow, with the finger pressing on the organ of Music; and I catch myself performing these actions, continually, as if I were a puppet moved

by strings. You will observe, besides, how the head follows the excited organ. The proud man throws his head back: the firm man carries his head erect: vanity draws the head on one side, with the hat on the opposite side: the intellect presses the head forward: the affections throw it back upon the shoulders: and so with the rest.

You see what my aim is;—not to magnify plain things into marvels; but to reduce marvels into plain things. There should be no marvels in philosophy. To a philosopher, all things are equally wonderful. It is simply the rareness, or our ignorance, that makes the difference. Now, all these actions of the natural language will occur without our being conscious of any action or sensation whatever in the part. It is clear, therefore, that there must be some original directing force or sentience, independent of consciousness or will. But I found that some of these sleepers *were* conscious of the action going on in the brain; and that when any feeling or sense was in existence, they could tell you the part of the brain that was in action. It was not pain; nor exactly pulsation; but a clear and peculiar sensation in the part in action. Here I found a second important channel of investigation under Mesmerism. But still, this was not a new phenomenon to me: for in certain conditions of ill health, I had been distinctly conscious of similar sensations.

There is another more positive condition to be remarked, when, after over-excitement or confused

action, &c., absolute pain is experienced; in the same way that it occurs from similar causes in other parts of the body. In pain, Nature, as it were, speaks out her wants, to arrest our attention; — to draw force to the part; — to instruct the physician. But the physician has not yet learned the language of pain; so that, in this respect, for the most part Nature cries out in vain. How little is studied the nature of pains, and their sympathetic connections, and their relations especially to the head! A headache is a headache; and little regard is paid to the parts affected. There is hardly one of Gall's organs, the proof of which has not been as clear to me from the notice of pains in the parts affected, as from observing the external development. There is hardly one organ that I have not at some time observed to pain me when in unusual action; occurring mostly when I was in an unusually sensitive condition: and there has been a time when I have kept myself unwell for days, solely to observe these phenomena. But we have other means now; and this is not necessary.

Here I must state another remarkable circumstance. You know that some mesmerized persons are able to describe the condition of others by sympathetic sensations, occurring in themselves. They sometimes go beyond this: but this is one stage. This is a sympathetic condition which I know to exist in some persons in their natural state; and it often occurs to those who mesmerize. While mesmerizing, they will feel pain in the part

affected in the patient; and, in some instances, imbibe the disease. I have seldom experienced these pains when mesmerizing; but I have felt, when very sensitive from mesmerizing much, immediately on coming into the presence of my patients where they were in pain at the time, and what was their condition of health. I have sometimes doubted my correctness when I felt the pains to have changed in a way that I could not suppose was the case: but on inquiry, I always found that the *mesmerometer* was right.

I must relate another condition which was more peculiar to myself. In passing my hand over a patient without touching, or knowing where he had pain, I could feel the pain in my hand, as distinctly as the patient felt it in the part affected. I felt the sensations as distinctly as I feel heat in passing my hand over a candle: and I could tell the character and precise extent of the pain. I felt in my hand what the patient felt in the ailing part. The hand would, as it were, absorb the pain; and I was aware of the instant it was removed from the sufferer. My hand removed other conditions of disease in the same way. The account published of my curing Miss ——'s eye was an instance of this. My hand was always soothing and healing, even to the most inflamed part, when the hands of others irritated and did harm. Beyond this, I could instantly tell when the patient passed into sleep, with my eyes shut; simply from the sensation I experienced in my hand: and the

same with each distinct change of condition during the sleep. Thus we may perceive that in all changes, certain forces or indications are evolved. And you see what admirable proofs we have of the action of one living body upon another. You may suppose what I thought of the objection that the effects of mesmerism were only imagination in the patient, while I was in possession of this test, and was easing people of their pains, and even putting them into the mesmeric sleep, for the first time, and wholly without their knowledge.

Another mode of inquiry with sleepers is to cause them, on any striking mental effects having occurred to them in dreams or otherwise, to point out to you, one after the other, the parts of the brain which have been affected, or in which pain has occurred, in relation to the passion or feeling of the time; and also in regard to the effects of mind upon the body, and of the body on the mind and brain. The extraordinary memory and sense of these influences and relations with some sleepers are very remarkable, and would hardly be credited by those who have not observed or investigated them. I could relate to you numerous striking instances of this. Beyond all this, you know how I found that I could excite into action any portion of the brain, or arrest any portion already in action, by touching the part, and in some instances by only pointing to it; and by other means: so that in numerous instances, I could play upon the head, and produce what actions I pleased, just as dis-

tinctly as you play upon the keys of the piano. The clearness of the response of course depended on the condition of the patient. In some cases, only a few parts are susceptible: in others, the whole brain: or the brain is susceptible during one condition of the sleep and not another, or at one time and not at another. In some cases patients are subject to the action of metals and other substances; and one substance will destroy the effect of another, or unite and cause a third result.

In some cases, the mere pressure of inanimate substances will excite the action of the part; or the mere pressure of where the head is resting. The different parts of the brain can be thus excited, just as we excite any other portion of the nervous system:—a limb, or one finger, or two fingers at a time; or a nerve of the face, so as to cause a twitching or other action of the part. The organs of the cerebellum are generally more susceptible than those of the cerebrum: but there are cases where the result is confused, or the excitement brings in a combination in its habit of action with other parts. In such cases, you can hardly draw any positive conclusions, any more than from the confused results of Majendie's vivisections. In a few instances, some parts being more susceptible than others, touching in the neighborhood of ose parts will call them into action, and not the s susceptible part which is actually touched. is is oftener the case with the organs of the llum than with those of the cerebrum. But

these are not cases on which I rely; and they are unfit for experiment. Failures in such cases are not to be considered as affording any objection to the clear and decided results from fit subjects, any more than a pain in the special organ after fatigue or distraction, — of music, for instance, — is to be negatived because some men have confused headache from a similar cause; they being in a different condition: or the single ache of one finger is to be denied, because in some instances the whole hand, and in others the whole arm, becomes influenced more or less on touching any part. Every case must be taken on its own merits, and the cause of failure or confusion ascertained. Thus, failures and modified results often become the clearest proof of the truth already established from positive and clear evidences. I have excited the separate organs of people in a natural sleep; even of very young children; and by the acting on the muscular power, have caused them to rise up and throw their arms about, without waking.

Now, in this last class of experiments, what a startling and undeniable proof have we of the truth of phrenology, as well as of mesmerism! Those ill disposed towards the subject might dispute the size of organs on the skull, or talk of coincidences, &c., but we have here as clear a result from the action of the brain, and from each part of the brain, as in touching the piano, or in the rubbing of a lucifer match, or by adjusting a voltaic pile. And can any experiment in nature be so interesting, or

more important? In the next letter, I can, I think, complete this part of the subject, and tell you all I presume you wish to hear from me about the brain and its functions.

VII.

INQUIRY FOR NEW DISCOVERIES.

H. M. TO H. G. A.

THIS last letter of yours is extremely interest Let me say, in the first place, that there is no da of my thinking that you exaggerate the valu the discoveries you have made as to the func of some portions of the brain. I do not see h is possible to overrate them, — supposing Proved, of which I have no doubt.

Let us just look at the course of the affa First, I suppose, all movement, all operation o thing upon another, was concluded, before so existed, to imply spirit. The winds, the wate waving and sprouting trees, the flickering fire, all animated by spirits; and so were the move of man, — the rolling eye and jerking limbs new-born infant, as well as the far-reaching th of the philosopher. How very lately were born children supposed to be damned becaus had not been baptized! Then, almost every seems to have been honored and glorified bef

brain; and especially the heart. How long will the word Heart stand in our parlance for soul, affections, sensibility, conscience? Then, by slow degrees, the brain seems to have risen into a sort of vague consideration as an indispensable, noble, but most mysterious part of our frame. All along, while any attention at all was paid to the brain, there seems to have been some kind of general impression that its size and mode of development indicated character. We find a low forehead, a small head, a thick skull, thought ill of; philosophers represented with large foreheads, and gladiators with a thick base to the skull: and, since Gall's time, we have met with a more and more extended admission that the head appears to have three regions, — the intellectual, moral, and physical departments. Then came Sir Charles Bell's grand discovery about the nerves; his detection of the different structure and function of the motory and sensory nerves: — a mighty discovery in itself, but yet greater for its suggestive value. Here is one kind of nerve for sensation, by which the cataleptic patient may feel while wholly unable to move; and another kind for motion, by which a patient may be frightfully convulsed without feeling any thing. A friend of mine, who told me all about it, was in the first of these states, — her sentience acute while wholly incapable of motion; and she had a somewhat narrow escape from being buried alive. The most curious thing is that she concluded herself to be dead. She was in a state of exhaustion after severe

illness. A peculiar sensation ran through her. Her mother stooped over her bed, and then, as the patient heard, told the sister, who was by the fire, that all was over. While hearing their grief, and feeling their warm tears on her face, the patient could not open eyes or mouth, or stir a finger; and she concluded this to be death. It did occur to her to wonder how long this would last, — how many ages she should lie thus in the grave; but she does not remember feeling any painful alarm about this. Yet, when, in the afternoon, her mother began swathing her in the sheet, from the feet upwards, she extremely disliked the idea of her head being thus muffled up; and, as the sheet came higher and higher, she made a desperate effort, and opened her eyes, — sending her mother back far from the bed, with a start of astonishment. She was still so full of the idea which had moved her, that she struggled on till she said "Don't smother me;" though by that time the entreaty had become unnecessary. Now, — the discovery being made that one set of nerves relates to sensation and another to motion, what so probable as that one portion of the brain is appropriate to sensation, and another to motion? You have detected these portions, have you not? Tell me as much as you can about it, before going on to report of the functions of the cerebrum.

I suppose you have two methods of ascertaining and testing the portions of the brain appropriated to motion and sensation; — by inquiring of persons in the mesmeric sleep, where they feel this or that

sensation, and getting them to point out the place; and then, by exciting involuntary movement, and even sensation, in other patients, by acting upon the parts to which you have been directed. If you ever succeeded by this method, — if you thereby render a patient insensible to the pain of losing a limb, for instance; or cause him to feel pleasure or pain in the absence of the outward condition; or set in motion particular limbs or muscles at your own silent pleasure, — I do not see how any number of failures can invalidate your discovery. Failures are only the supervention of other conditions than those you are seeking: and they cannot invalidate their antecedents.

I can never doubt the wonderful efficacy of the method, after what I have witnessed. Before I had ever turned my attention to it, or had heard any thing of your researches, I was witness to a curious contention between a mesmerizing friend of mine and her patient; — an ignorant servant-girl, under twenty years of age. The lady desired the girl to mimic a guest: she thought she ought not. Her mesmerizer appealed to one faculty after another,— to her power of imitation, of obedience, of affection, &c., and the girl raised her hands, and touched, in the course of her response, Conscience, Firmness, and, finally, Combativeness. The raising, first of one hand, then of the other, the stretching and quick movement of both to cover the desired portions, in the midst of her animated sleep, were a singular sight.

I know something, too, of the peculiar sensation you speak of, when portions of the brain are set strongly in action, by mesmeric influence. The sensation is markedly local, and extremely peculiar; a sort of creeping and lightening or melting — rather agreeable than otherwise, though the force of the faculty is, at the time, too great for comfort. I have sometimes thought it not wholly unlike the sensation I have been aware of every time, for weeks together, that my mesmeric patients have "slipped over" into the sleep. When three or four have been in my room at one time, and I have put one after another to sleep, I have found myself able to detect, by a peculiar sensation throughout my whole frame, the precise instant when the sleep took possession of them, though their eyes might have been so fast closed before, that it would require deep observation and long experience to assign the moment without such sympathy. As for detecting the seat of pain in a patient who does not tell of it, — I do it simply by feeling pain in the fingers, and, if I persevere, in the wrist, elbow, and shoulder, successively; and, more frequently still, by the swelling of the hand. More than once, a ring on my finger has been almost hidden by the swelling which takes place in a few minutes, when I mesmerize a person under severe pain. But there is, in this case, no sensation in me at all resembling that of the action of my brain, under the hand of my mesmerizer, or that which indicates the moment when a patient of mine passes into the sleep.

By the way, can you tell me how it is, that the mesmerizer feels the patient's sympathetic pain, rather than the disease which causes it? For instance, when liver disorder causes pain in the shoulder, why does the hand of the mesmerizer swell in passing over the shoulder, and not the liver? Or does it in both?

But I must remember how much you have to tell me in your next. You promise to go on about the brain and its functions: and I know there is much to be said yet under this great division of our survey.



VIII.

METHODS OF NEW DISCOVERY. ORGANIC ARRANGEMENT OF THE BRAIN.

H. G. A. TO H. M.

THANK you for your confirmations of so many points of interest.

It seems to me, that it is only by the study of our peculiarities and abnormal conditions that we shall gain light whereby to comprehend the ordinary and normal operations of our nature: and this knowledge, again, will enable us, at once, to perceive the cause and nature of every deviation from the true form. But knowledge has a progressive growth and natural course; and it is not in the

power of the most suggestive mind to make any sudden leap. The discovery of a new instrument, or of a general law, alone enables us to make a stride in advance. The telescope, the power of which was not credited at first, gives us an extended range of observation; the microscope enables us to observe the more secret workings and minute structure of parts: by the electric telegraph we communicate in London with our friends in Edinburgh: by the stethoscope we detect the condition of internal portions of the body. The laws of light and gravitation extend over the universe, and explain whole classes of phenomena: the law of physiology, that each function has a special organ, and the extension of this law to the brain, explain the differences and variations in the condition of man, and his relations towards other animals. Gall's discoveries were made by observing striking instances of particular development; and we all of us have some peculiarities of development or constitution, if we will but closely observe them. I am glad to learn any thing you will tell me about your own unusual condition. I never experienced any swelling of the hand, as you and some others have, from relieving pain, or other conditions: but my hand has, in many instances, remained strangely hot and in pain the whole day afterwards. In such cases, however, there was a general irritability or inflammatory condition, as well as pain, in the patient. Simple nervous pains seem to hang loosely upon the nerves, and pass away quickly under mesmerism; but when

they have roots in some diseased condition, they take more hold, and protract the process of cure. I have found a diseased part and pain relieved more readily from the sympathetic points than from the part itself: — the sympathetic part seems to be the natural channel by which the disease diffuses, and so relieves itself. The question of sympathetic conditions in the same body is a question of great interest. It is a kind of mesmerism or relieving of one part of the body by another. We put our hand to an aching part as instinctively as a dog licks a sore. It is an extremely interesting question how one disease may be made to cure another, as light destroys light: to see also how one person is cured by another taking the disease. I know mesmerizing doctors to have given diseases that they have brought from other houses to those whom they have mesmerized; and thus it may be a question if medical men are proper persons to mesmerize. I think they cannot be too careful. The facts of contagion and infection one would suppose would have predisposed medical men to attend to mesmerism, and to appreciate the importance of the inquiry.

In my last letter, I referred to several methods which, in my opinion, are undeniable means for ascertaining the functions of the brain. Just as the different senses are essential to aid and confirm us in our judgments of the phenomena of external nature, so likewise do we require various instruments or means to aid and confirm us in our inves-

tigations into the nature of the brain and nervous system. I have no fancy to concoct or uphold a system, but have desired to seek out and bring to light all objections, and let them lie side by side with the facts, that an impartial judgment may be formed. But the means having been once ascertained, as Bacon says, "it remains only that men have perseverance, united with great severity of judgment; that they change their instruments; that they increase the amount of evidence; that they subject to experiment each phenomenon, and frequently, and in a variety of ways." Sir Charles Bell made his discoveries by stimulating the nerves separately; under mesmerism, we may stimulate or repress the action of separate parts of the brain, and then experiment on the function after a similar method, and one which is adapted to the condition. But, from what I have said, you will understand that we still require one other instrument, which, like the microscope and telescope, shall enable us to penetrate and observe parts and phenomena to which our ordinary faculties will not reach. That instrument is found in the sensitive and more concentrated or exalted condition of the observing powers under mesmerism. The existence of such a condition appears a great wonder to superficial minds, which, perhaps, when familiar with the fact, find no interest in it, and are insensible to the profoundest truth, showing how easily a state of wonder may pass into that of indifference. To the philosopher, the spirit of prophecy, the growth of

a blade of grass, and the ordinary perception of any object, are all equally wonderful, and deeply mysterious; mysterious beyond our faculty of conception, and out of the very nature of knowledge.

That such exalted conditions do exist, is now so clear a matter of history and daily occurrence, that no one need trouble himself to convince those who persist in ignorance, and doubt of what is so notorious. None know better than yourself how these *clairvoyant* powers have been manifested in a variety of forms, in all periods of history, and with all nations. We know that future events are foreseen in dreams and in trances; sometimes under the influence of mesmerism, and by some apparently in the ordinary condition of their lives. We know that some can see distant objects without the use of the eye; and that others can see, so to speak, through opaque objects, reading what is written in a closed book, and even the thoughts which are passing in the mind of another. We know that many under mesmerism can describe any diseased condition in themselves and in others within the sphere of their vision; that they have an instinct of remedies, — when a crisis will occur, and the cure will be effected. They do not go by any system, but by an instinct, so to term it, of the peculiar temperament and wants of each particular case. There are some who have detected the properties of herbs and of other substances, and can observe the structure, condition, action and uses of parts of the animal frame. Whatever

doubt any one may have as to the truth of any of these particulars, the general fact has now been so clearly exhibited in almost every portion of the civilized and uncivilized world, that, without regard to my own experience, I presume I may say that, in a general way, the fact is established. With such a host of notorious instances on record, it is difficult to conceive that any enlightened person would dispute it: but there are persons even in this great metropolis who talk on this subject as if they had been born, bred, and dwelling in an obscure country village, subject to its arrogant conceits and contracted sight.

It has been objected by some physiologists, that if these facts be true, it remains to be accounted for that discoveries in physiology have not been made before. The answer is, that qualified men have neglected the subject. The microscope might have existed long enough without any discoveries having been made by it, if it were used only for amusement and to excite wonder; to magnify flies' wings, or to watch the grotesque movements of insects in a drop of water. It is a matter requiring the greatest perseverance and carefulness, and good cases are rare; the state depending, I think, much on the condition of the mesmerizer, and the direction of his mind. I am, of course, alluding now to the Intuitive powers; not to the cases where the organs are excited by touch. How deeply Lord Bacon seems to have been impressed with the importance of the phenomena of mesmer-

ism ! The effect of one living body upon another at a distance, he considered "one of the highest secrets in nature." He considered it in relation to the causes and the cure of disease. This has been pronounced ignorance and weakness in Bacon. Well might he bequeath his speculations to future ages ! I wonder whether Macaulay was aware, or thought of this, when, in his essay on Bacon's philosophy, he said that Induction might lead to the belief in Mesmerism, which he, for want of the spirit of an inductive philosophy, calls nonsense. Bacon even speaks of *clairvoyance* under his term "Natural Divinations," * as one means of acquiring obscure knowledge, and of anticipating events. What we have to attend to chiefly in this matter is to be aware of cases of delusive dreaming, and of false prophecy ; to receive, even in the best cases, what we accept as suggestion, to be tested in all possible ways ; and lastly, to reason only in relation to what is known. We must be on our guard against hasty assent, and generalization from a few instances, and incomplete experiments ; as well as against (what is common in novel matters) being oppressed by difficulties, without waiting to see through and pass them. We must restrain enthusiasm by caution, and doubt by wisdom. We shall win Nature only by waiting upon her, and conquer her by submission, rejoicing in every new light without fear or prejudice, remembering that

* See Appendix A.

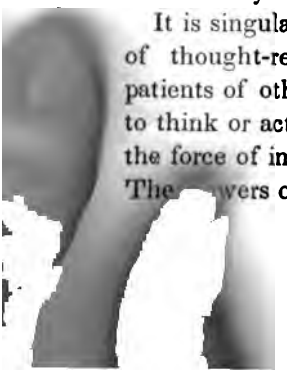
the progress and innovations of knowledge must always be good. This should be a faith with us. But we shall not gain knowledge by sending our patients rambling amidst visions of "another world" in the steps of Swedenborg and others, but rather by bending the power to gain knowledge of ourselves and of what is about us, and useful to us in this life and sphere of being that we have to do with. When somnambulists think they see into another world, a world of spirits, it may be clearly proved to be all delusive dreaming; and yet on such declarations do enthusiasts build up a faith and religion, and are proud of what they call spirituality. How the matter tempts me to wander! But you see how, from fancying the properties of things to have an individual existence, and calling this Spirit (meaning an existence out of matter, and the ruler of matter), and the fancy recurring in the dream, floating impressions are supposed to be realities. Such tricks has strong Imagination!

But where there are shadows, there is substance. Let us see what it is. It has clearly appeared that nothing is gained by waiting upon the revelations of somnambulists. They must be used as instruments. They must be directed to physiological inquiry, and to such matters as are found to be within the sphere of their particular powers. Each case must be tested, and stand on its own ground. It must be ascertained whether they can recognize what is clear-seeing, in distinction from what is but vision or dreaming, or impression from without:

and in the most unexceptionable cases, still the matter must be confirmed, as I have said before, and tested by every available means. I do not think I am a very credulous man; and I say that the facts I am about to state are as fully proved as facts can be. I am always, thankful, however, to have any reasonable objections advanced.

I will relate to you the nature of one case as an example, and as the one from which I have gained the most. This was a lady of fifty years of age; the mother of a large family, in a weakly state of health. She had lately become partially deaf; which was the cause of my first mesmerizing her. She was not learned; but of a most unaffected and charming nature. I speak not from my feelings, nor praise her because she was my patient, and so clever a somnambule, (which is too often done,) but only relate what is the universal impression among those who knew her. She knew nothing whatever of physiological subjects. She is since dead. She manifested from time to time clear flashes of *clairvoyant* power in various ways. Her constitution was breaking up; and in the end, this power turned to mere delusive dreaming; which is common in such instances: but in the mean time, I had occupied her with the brain, finding that character of sight to be her *forte.* I could excite any part of her head, and under any combination: as I found that she could recognize the size and character of each organ when in action. She could explain the nature of each faculty, and its

precise situation, and relation to other parts. She had the power of bringing into action any portion of the brain at will, whether it were among the outer or inner convolutions; and when there was any indistinctness or difficulty, she would say so, and would declare when she was tired, and could no more see with accuracy. She could thus see whether any sentiment were a simple power, or the result of a combination; and of what combination. She could see the form and structure of the brain. She never echoed my thoughts; but pointed out what was wholly new to me; and both in regard to the functions of the organ, and the form of the brain, there were the same difficulties and the same facilities of perception, whether it related to what I already knew or to what I was ignorant of. The objection that such instances are merely cases of excitement of the power of thought-reading was wholly out of the question. There was not the slightest approach to it. She would reply to me by fact after fact, and reason upon reason, which proved to be correct; but not in the least what I anticipated at the time. She always replied to what she supposed the question referred to, and never to my thought.



It is singular that I have never produced a case of thought-reading, though I have mesmerized patients of others whom I could clearly influence to think or act by my will, or by what Bacon calls the force of imagination acting upon another body. The powers of somnambules may often be devel-

oped, and directed to what one wants them to do; but none have ever responded to my thoughts: and often, when they do so respond, one may prevent it, just as you may prevent them from hearing; perhaps, simply by desiring them to be deaf; when a pistol fired at their ear will produce no effect. We must be patient to learn in this matter, and not impatient to anticipate and dictate what Nature should be.

To return to the lady. I could never catch her tripping, or in error on any occasion; and all that occurred was taken down at the time, and in the end compared. I cannot go into details, and shall only say that I repeated the experiment from time to time, in every diversified way that I could devise, and questioned her for explanations on every head, and then sought to test her assertions by the other means I have described, and by comparison with others having a similar faculty with herself. So much as appears to be established, by the various means I have sought, I will relate. It is not, I think, requiring much of the credulity even of those who are not acquainted with the higher phenomena of mesmerism as matter of fact, to suppose that when the ordinary and outward action of the senses is cut off, and when the body is brought into a peculiar abnormal condition, the inner part of the brain might partake of the condition not required by the paralyzed senses. The same relations, in fact, would take an inward direction, and the brain itself become, as it were, an organ of sense, with

a concentrated power; the attention would be capable of exciting and fixing on parts, and the action of these parts, just as in the ordinary condition it could excite to action one limb or one finger, and take cognizance of the sensations, or other conditions going on in such part or parts. I am not now insisting on this being the true explanation of the phenomena; but such a view or possible form of the fact is sufficient to help us through our wonderment at the novelty. There is a compensating power in nature towards the completion of individual growths. A branch of an apple-tree broken nearly off will flower and bear more abundantly: — so do the higher functions and fruits of the brain, by fasting and partial paralyzing, appear to be sustained in fuller action: roots will appear from the stems of trees: even leaves will take root: flower-buds may be changed into leaf-buds: stamens take the form of leaves in double flowers; and the lost leader of a young pine-tree is supplied by one of the side branches turning upwards: the prevailing winds on one side of a tree will cause the roots to take firmer hold of the ground on the side in the opposite direction to the wind. Shall we be surprised then, in the complicated structure of Man, to find, under unusual conditions, certain changes, — compensations and intuitive powers evolved in an abnormal state, and in the stress of disease? Shall we be astonished that a man should have intuitive insight into his wants, as an animal has a similar sense in like circumstances? And

are not physicians in the habit of trusting to these intuitions? It might be humbling to the pride of human reason to learn how much of what is used in medical practice now, originated in intuitive suggestion; and how much of the remainder was from pure accident, and how little is the result of scientific research and induction. And after all, where have we a specific and a surety? It would be wise therefore in physicians, physiologists, and divines, not to refuse the new light which is yielded by mesmerism. There is no haste, however. All will come out clear enough, and be in the end as it should be. All that need be desired is patience, and the good will of good men.

I have now given you a general notion of the different modes by which I conceive the functions of the brain may be ascertained; and I feel satisfied that your sense and experience, free from any prejudice on the subject, will enable you, at once, to form a just estimate of their value. I will proceed to explain to you what appears to me to be established, and my views of the general arrangement of the organs of the brain. This is what natural theologians would consider the design or final cause; but I can conceive of it only as the general form of certain relations, developed in nature according to necessary and internal laws. If the brain be rightly understood, we may expect to find the same essential harmony and fitness that we discover in all other natural objects with which we are acquainted, and in which all of necessity exist.

I begin, as you suggest, with the lower and lesser brain — the cerebellum. Here I find a number of organs associated in groups, and having a special relation to the bodily conditions; the functions of the cerebrum, the superior brain, relating to the external world, and also to those faculties of the cerebellum. The lesser brain, I may say, for distinction's sake, is more especially the brain of the body, and the cerebrum of the mind. In this seems to rest the fundamental distinction between the two brains.

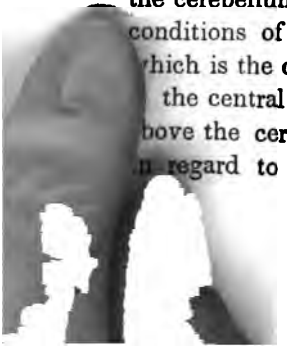
In the second place, we must notice the groupings and localities of the organs, in their relations to each other, to the nerves of sense, or sense channels, and to the end or object (if I may so speak) of the particular faculties. We shall always find that the power is near its work, and in near conjunction with other powers or parts with which it has to act. In this principle we shall find a guide for our investigations, both as regards Man and other animals, and in the pursuit of comparative anatomy. But I think I shall be best understood if I indicate the separate faculties and the position of the organs in the first place.

The side, or outer portion of the cerebellum, is appropriate to the Muscular conditions. The part immediately behind the ear relates to Muscular Movements. I wish to avoid precise definitions, so to leave the subject as Bacon admonishes, as in a e of growth. Joining with this power, and nding to nearly half way between the ear and

occiput, or centre, and on the upper side of the cerebellum, is what I have called the Muscular Sense. It induces a sense of the condition of the muscles. Beneath this is the faculty of Muscular Force. In mesmerized subjects fit for the experiment, you can, by exciting the first organ, cause movements, or a disposition to be in motion; or produce, when the patient is insensible or rigid, the cataleptic condition, or the power to move the limbs about as upon wires, or as moving upon a pivot; — the limbs remaining in the position in which you place them. The Muscular Sense gives them the sense of these positions, and other conditions also of the muscles, as regards strength, &c.: and together these organs induce a desire for muscular exercise. When mesmerized persons are quite insensible to pressure, or other conditions of the limbs, excite this organ of Muscular Sense, and they instantly become sensible of their muscular state. In many instances, the arms may be extended rigid in the air for an hour, the sleepers being quite unaware of the fact, even though they may be able to converse with you. Similar anomalous conditions are induced under chloroform. The exciting of the organ of Muscular Force induces rigidity mostly on the same side as the organ excited: which rigidity seems to be undirected and unused force. Here then you see the origin of the muscular powers and of the muscular sense described by Dr. Brown and others, and which Sir Charles Bell perceived to be necessary. Your instance of the lady in trance is one of those

singular cases of which the interest is so great. I have witnessed it often, induced by mesmerism, when there has been the appearance of death, and incapacity for the slightest movement, to indicate life or attract attention. Again, there is the sleep-walker, apparently without consciousness; and the opposite state, — of consciousness and fright, and the feeling of inability to move, which we call nightmare. Another state of dream is that of flying, or being carried along, and of slipping down a precipice; the sense of motion, independent of exertion, or of any muscular feeling. We shall begin to have a better understanding of dreams, I think, presently. You will see, at once, the relation of these muscular powers to the different character of fits, and many other abnormal conditions.

Towards the centre of the cerebellum, I find the organs appropriate to the different bodily pains and pleasures, temperature, &c., — such as indicate the condition of the body, rather than in relation to external things. The innermost portions of the cerebellum relate to the more secret doings of the internal functions, — the growth, secretions, and replenishings of the body. In the central part of the cerebellum is that which relates to the physical conditions of the amative state; but that love which is the desire of union with the opposite sex, the central organ of the cerebrum, immediately above the cerebellic organ of the physical relation. In regard to pain, we must remember one very



remarkable fact, that some sleepers are so insensible to pain, that you might cut off their limbs without their knowledge, and while they are talking or laughing with you; and yet they will feel instantly any pain inflicted on the mesmerizer. Sometimes they will refer the pain to the same part in themselves; at other times, feel it as in their mesmerizer, and be greatly disturbed by it. Ann Vials, on the nerves of motion or sensation in the stump of the arm that had been removed, being irritated from any cause, feels the motion or pain, as the case may be, as in the limb; the bending of a finger and thumb, or pain in a particular spot, just as if the arm were in its place. We refer pain to a disturbed part, just as we refer noise to a distant place or object. If a ray of light is, as it were, cut in half, and reflected from a mirror, we do not see it on the mirror, but as behind the mirror, the whole distance it has come.

But we shall never get on if we diverge into these relations by excursions into Cosmos. There does certainly seem something truly wondrous in being able by the slightest touch, as by magic, to cause a person to be instantly sensible or insensible to any degree of pain: but what we know of the effects of a few breathings of chloroform diminishes the apparent marvel, while it adds to the real interest of the condition, as affording another evidence and mode of experiment. It is remarkable, the rapidity with which a particular state may be induced or removed; — intense anger, for instance,

in a moment being converted to benevolence and tears; — the sense of pain being stayed, and complete rigidity dissolved with a breath. Our friend, Mrs. W., used to go into a strange state of rigidity when mesmerized. It would take, I believe, sometimes half an hour to get her wholly relaxed. I saw her in this state one day, and breathed on the muscular organs, and she was released immediately. It is the same with lockjaw as with other local rigid conditions which often occur under mesmerism. I have caused children, as I mentioned before, in their natural sleep to rise up and lie down again, or throw about their arms without waking, by gently touching the Muscular power, just as I cause somnambules to walk in profound sleep, and when no other excitement or pressure on any other part of the head, or desiring them and entreating them to move, will induce them to do so. In this you have a clear fact; an instance wherein neither the impression of my thoughts, or commands, or suggestions, or other means, avail any thing. The response comes as truly as the sound from touching a particular note on the piano. If this be a delusion, what may not be a delusion? and we may ask in despair, "what is truth?" I can cause these mesmeric sleepers to dream what I will, and make them fancy they have pain or pleasing sensations, the case may be, or that they are in motion, &c. r any great muscular straining or exertion, I pain in that muscular organ, both in myself thers: also in the central portion of the cere-

bellum, under the influence of cold or indigestion. I have noted the intense and often fixed pain in the central portion of the cerebellum, in many cases of deranged physical condition. I make mesmerized patients hold a weight, and tell me where it influences the brain, and see how the excitement of that part affects them, and I cause them to trace their various sensations, injuries, &c., to the brain. Whatever road I follow, it brings me to the same spot. And then, again, I take Gall's method. I have observed the great development of the muscular organs of the lateral portions of the cerebellum in prize-fighters and others, having great muscular power, agility, or muscular sensibility. The gladiators, as you remark, were noted for having a thick base to the skull. I have observed also numbers of children with precocious muscular power, and the brain protruding at these organs, while I notice men with large muscles but little strength, or muscular tact and sensibility, deficient in the necessary organs. When the general physical or vital powers are great, the cerebellum is highly developed; particularly the central portion. The results of vivisections confirm my statements, and cannot be explained under any other view. Anatomy shows no objection, but is wholly in favor of the new philosophy. Again, the effects recorded under morbid conditions and injuries to the brain, give sanction to the same. But you see it is quite impossible to do more than allude to such matters, except when you wish any special explanation.

And here I must pause again, and leave the rest I have to say about the brain for another letter. But I may add, that I am far more anxious to set men inquiring by methods adapted to the subject, than to establish what I have noted as a new light from my experiments. The knowledge of these organs of the cerebellum in particular, you will perceive to be highly important towards the explanation and cure of disease; and to be most suggestive and necessary to those who mesmerize. Every mesmerizer should understand phrenology and phreno-mesmerism; and the physician who is ignorant of these matters of phreno-physiology, goes into the sick chamber with a light only on one side of his subject.

IX.

ILLUSTRATIVE CASES.

H. M. TO H. G. A.

You say it would be an extremely interesting question whether one disease may not be made to drive out another. Do you mean by this any thing different from the ordinary medical practice of our ne? I take it, this is the whole secret of medi- practice, — the secret of giving calomel, and the other horrible drugs by which doctors are

wont "to set up one disease to drive out another," as they say. In this matter, my sympathies are wholly with the Homœopathists, who prefer following nature, and helping the actual disease out of the system, to driving it out by the introduction of another. But one wonders that the doctors have not got on, — such facts as they have had before their eyes, — from daily causing a more manageable disease to drive out a less manageable one, to trying whether a healthy person cannot take upon himself the malady of the sick, — not only sharing, but relieving the evil. You or I could at the shortest notice furnish them with exemplifications of this, from our experience in mesmerizing: and whenever they will attend to it, and put the matter to proof under their own eyes, it will be a great day for the health and happiness of the human race. It is a strange thing that the facts they must daily meet do not set them looking into them. You know my friend Mrs. H. C.'s husband died of consumption. When near death, within a few weeks of it, he was sleepless and restless, and suffered more from this restlessness than from any other cause. One day he told his wife that when her hands were on his pillow, moving near his face, he was aware of a soothing sensation: and he asked her to move them again. She had never, any more than himself, heard any thing about mesmerism; and when by experience of what suited the invalid, she in fact made passes whenever he needed sleep, she had no idea that she was mesmerizing. He

always sank presently to sleep; and she always was aware of feeling exhausted, sleepless and restless. How many a sufferer have I seen relieved of one ailment after another, and daily recovering flesh and color and animation at the expense of a pain in my hand, or wrist, or elbow, or shoulder, and a nervous exhaustion which a cold bath, or an hour in the sunshine, would repair!

As to the communicating of an ailment, without any corresponding advantage, I had, however, a somewhat startling warning five years since. My sister was mesmerizing a little boy, extremely susceptible, and succeeding in fixing his limbs, when I, inexperienced in the mysteries of the case, put my hand in, and made mischief. The boy was in a lively state of sleep-waking: and I amused him by putting my ear trumpet into his ear, speaking to him through it, and thus breathing into his ear. Presently he was found to be apparently stupid, — attending to nothing that my sister and his guardian said to him. At last, it struck his guardian that I had made him deaf. And so I had; and nobody but myself could recover him. I was instructed what to do; and glad enough I was when the hearing returned.

To come back to our present business. If we will not, in order to ascertain the seat of sensation and motion, question persons in the mesmeric sleep, why do we not question closely those who have never been mesmerized, but who yet may have something to tell? Now, you know I never have

a headache. Whatever disturbance I may be under, from illness or exhaustion, I never have a headache. During my long illness, however, through upwards of five years, one sensation was never absent, except when I was well opiated. A slight dull pain stretched across the back of the head, within such exact and narrow limits that I used to call it "a bar of pain." It was slight, as I said, and of consequence chiefly from its constancy, and from the regularity of the process of its removal by opiates. Under any one of various methods of applying opiates, the process was the same. In about twenty minutes, a numbness stole over "the bar," and stole down either side of the nape of the neck before it was felt any where else. Is this fact of any value to you? And have you other testimony of how opiates appear to sensitive patients to take effect? During those five years, I could never succeed in drawing attention to that "bar of pain," or to the course taken by the numb sensation; and no doubt I was considered "nervous" for mentioning them so often, instead of being understood to be merely curious for the reason.

You speak of the value, for observation, of peculiar cases and abnormal conditions. I can offer you two peculiar cases for investigation, the second of which, I have always thought, must be a prodigious puzzle to the metaphysicians. I cannot think how any but phrenologists can make any thing of it. In remarkable contrast to it is my own. As you know, I have never had the sense

of smell (except once for a few hours,) nor therefore much sense of taste; and before I was twenty I had lost the greater part of my hearing. When any companions give me notices of distant objects or occurrences by means of any of these senses, — when they tell me what is growing in an invisible field or garden, or where there is music, or what people are saying on the further side of a reach of the lake on a calm summer evening, I feel a sort of start, as if I were in company with sorcerers: and it is as if I had once lived in a land of magic when I remember reading on my little stool in a corner, and being disturbed by hearing visitors whispering about me. Such an unusual set of conditions must yield some results of unusual experience; and I could tell you curious things of the good and evil (the evil, as I think, abounding) of the undue action thrown upon certain parts of the brain by the insensibility of the portions appropriate (as I suppose) to the senses in question. It seems to me that, for want of the "*distraction*" commonly enjoyed through the play of the senses, there is too little relief to the action of the busiest parts of the brain; and life is made more laborious than can perhaps be conceived of by those who are using their five senses through all their waking hours. Among the faculties thus intensified, — if not overwrought, is that of consciousness: and this it is which I think may be useful to you occasionally. If out of this consciousness I can illustrate any of the doctrine you communicate, I will

do so, as we go along. Meantime, here is the opposite case, — that of a child whom I studied with the deepest interest from the first year of his life till he died at the age of nineteen.

This boy was an idiot, with senses of marvellous acuteness. Those connected with such cases do not like the word "idiot," and reject it if any faculties exist which can be pointed to as an indication of mind. This boy, however, could not speak, nor understand speech, nor communicate with, nor appear to recognize, any other mind. His peculiarities arose from early injury to the brain; and there was a singular sinking and contraction across the middle of the skull. As for his senses, — he knew people and articles of their dress by the smell: he could not be cheated into taking in his food medicine tasteless and scentless to every body else: the faintest sound of distant music would make him roll on the carpet with delight: and his delicacy of touch was proved by the delicacy of his cuttings in paper. Towards the end of his life he was losing his sight from cataract; and his eyes were never straight: but I don't know that his sight was early defective. He had little muscular strength, and no agility. The stiffness of the back, the absence of *spring*, and the rolling walk, showed injury, — it was supposed to the spine, — but now we might suppose it to be to the cerebellum. He had little pleasure therefore in active exercises; but evidently very great in the exercise of the few faculties which he had in wonderful strength.

X.

ORGANIC ARRANGEMENT OF THE CEREBRUM.

H. G. A. TO H. M.

IT appears to me that the senses are simply instrumental; that is, the media or conditions by which impressions of external objects are, under ordinary circumstances, made to the brain. I mean that there is no sense or consciousness out of the brain: that the entire perceptive power is within the brain. It is natural that we should expect to trace the nerves of each sense direct to the organ in the brain appropriate to that sense. However, this cannot be done. The nerves from the eye, for instance, do not pass direct to the perceptive faculties, but, like the other sense nerves, pass on to masses of gray matter at the back of the brain, which, however, communicates with the cerebrum and cerebellum. It occurs to me, therefore, that it is very possible that the sense impressions do not pass along the nerves into the perceptive region of the brain as electricity passes along wires; but that the nerves of sense maintain a receptive medium, or condition of that medium, the impressions on which act directly on the brain organ or organs relating to such impressions. I think that the muscular and executive forces of the system are more nearly allied to electricity, and the receptive and mental powers rather to magnetism. I think also that the

passage of the impressions from the nerves of sense to the organs of the brain resembles that from the external object to the sense; as in the case of the retina in seeing: and that the combined action and associations in the brain, — in our thoughts, — occur in a similar way. We must not expect to find the vital actions to be wholly after the fashion of mechanism; but the view I have taken will seem reasonable to those who will consider how light and heat and magnetism pass from object to object; and how pain may be transferred from one part of the body to another, and from body to body; and how, under appropriate conditions, one mind is influenced by the silent will of another, or sympathetically receives thought, or other impressions. But I only submit this view as suggestive. I dare say, in time, I shall find some clever sleeper who will be able to satisfy me upon it.

We will now cast a general glance over the faculties of the cerebrum. Very general and very brief it must be: in fact, little more than a catalogue: as the object is, not to expatiate on the developments of phrenological science, but to present the mutual relations of the faculties, as a preparation for pursuing our special inquiry.

The faculty of Hearing consists of the simple sense of sound situated on the base of the brain, close upon the bony covering of the apparatus of the sense, and in intimate proximity to the organ of tune, or what we may consider as the intellectual perception of the nature and relations of sound.

There is also the sense of Colors over the centre of the eye; and the sense of Light close beneath this. The senses of Smell and Taste have similar divisions. It is the same with regard to pleasure and pain, and the Muscular sense. Weight is in connection with the muscular powers. To measure force — perceive or estimate weight — is quite a different matter from the sense of the muscular conditions and strength. Behind the organs of Weight and Color are organs appropriate to pleasure and pain, bearing the same relation to the organs of Pain and Pleasure, in the cerebellum, that music has to sound, color to light, and weight to the Muscular sense. There is no part of the subject which has perplexed me more than this — to understand these double conditions apparently of the same sense; but there are many things which we must receive as facts that we cannot at first wholly understand; and it will be long perhaps before we attain a very exact and clear analysis of all the faculties. There is the sense of Hunger and Thirst, close beside the organ of Sound; and of Feeling immediately in front of the Destructive faculty: and before this again is a sense of the quality of food, and what is good for food; a faculty in high development in the lower animals, and with some somnambules, and sick persons. The other perceptive faculties are very much as phrenologists have described them; — as Number, Order, Color, Weight, Size, Form, and Individuality: — all in a line over the eyes. Above these are Time, Locality, Eventuality, and Comparison,

relating to objects, events, and resemblances in the characters of these. This is the analogical faculty: and on either side of it is Causality, — the sense of the sequence and necessary dependence of things, — the sense of the connection of effects with their causes. Joining this faculty is the sense of Incongruity, — the organ called Wit. It has been supposed by most phrenologists that the intellectual faculties described by them included the whole process of thought; but I was always unsatisfied about this. I find above what is called the organ of Tune, a faculty for the arrangement of ideas bearing the same relation to ideas that the organ of Order has to the arrangement of objects. For instance, in a museum, the one organ would be employed upon the classification of the objects; the other to the mere objective neatness and orderly arranging of them. Above the organs of Wit and Causality, I discover the organ of the highest conceptions of thought, whereby ideas are contrasted, and we discern true distinctions. Bacon says that the greatest difference in the intellectual nature of men is, that "some more readily perceive resemblances and others differences." The central faculty, unbalanced and unregulated, induces hasty generalization; the other endless distinctions. This central organ seems to evolve the sense of resemblance, inducing generalization and analogical reasoning, and the ideas of unity, general laws, or constant forms. The other faculty relates to judgments through the sense of difference. From con-

trast are perceived true distinctions or particular laws. Thus we have the comparing organ which unites nature, and the one which divides or analyzes; aiding towards true divisions, distinctions, and definitions. Beneath this central organ of Comparison, lying under Benevolence, is what has been termed by a somnambule the Eye of the Mind. This seems to be power of judgment: — we might call it the Intuitive faculty; for it is this which is chiefly concerned in *clairvoyance*. I dare say you do not find me very explicit; but I think the less I attempt to define the better, so long as I can direct attention to the existence of certain faculties in particular localities. This faculty, this mental eye, seems to receive the result of the doings of the other faculties, and to be, properly speaking, perhaps the Mind sense, joining as it does with the Conscious power. Here seems to be the origin of the suggestive faculty of Genius. This seems to be the true Mind power, or intellect. It seems to split off into the senses, as light divides off into colors, or sound into notes, but to contain within itself the power of mind concentrated, when cut off from the ordinary character of sense and reason. Then all time seems to become as one duration; space seems as nothing; all passions and desires become hushed; truth becomes an insight, or *through sight;* and life a law.

The faculty of Language is at the back of the eye, in the base of the intellectual lobe, and close over the instrument of speech. In these regions

also we have the sense of Touch between Weight and the Constructive power, which, together with the Muscular sense, enables us to manipulate with such a correct measure of force and precision. Nearer to the centre of this under surface is the sense of Smell, which seems more nearly concerned with the sense of Hunger, the sense of Taste, and the Conscious faculty. Smell will relieve us in fainting, or cause us to faint; and wake us from sleep; cause hunger or nausea, and indicate the quality of food. Over the ear is Destructiveness, which appears to be divided into the impulse to destroy, give pain or injure, and mere dislike. Any thing harsh or discordant will irritate this faculty. The notion of Freewill has been a constant irritation to it; and we seek to resent and to punish * with the same ignorant folly that the nurse exhibits in beating the naughty chair against which the child has fallen: and hence the belief in evil spirits, and in a hell of fire and torment for "the wicked." Behind the Destructive faculty is the Opposing impulse:—above Destructiveness, the Secretive power, which may induce suspicion and disguise. Some men's lives, where it is in excess, are a continued game at hide and seek. Immediately in front of this last organ, is the sense of Property, adjoining Constructiveness and the Food faculty beneath. Here we have associated together the faculties which make us destroy for food: and when we do not kill we

* Appendix B.

cut up and masticate that which we devour. And here are the impulses to acquire, to construct, and to store up what we do not use. It is interesting to watch the action of these faculties in the lower animals.

Above the Secretive faculty, and rather farther back, is Caution, inducing circumspection and carefulness. A portion of this organ causes fear, — such as the fear of loss, or of giving offence, &c., according as it is acting in conjunction with other faculties; and behind this organ is the sense of personal danger, inducing the start of terror in fear of injury or death. In front of this organ of Caution, I find the impulse to labor, — the love of Industry, the right exercise of which is such a spring of satisfaction. In front again of this organ is Ideality, — the sense of beauty — the abstract sense of harmony and completeness. On the top and back of the head, in the centre, is Firmness; on each side of which is Conscientiousness, — which divides into the sense of right, the impulse to sincerity and candor, and the love of truth. These faculties are described as being one beneath the other, — the love of Truth being the lowest, and the sense of Right on the surface. On the central portion of this coronal region is the faculty inducing reverence, awe, respect, deference, as the case may

Its highest object seems to be, a sense of the ite and abstract power, — the inherent force principle of nature. It seems to convey a sense ir dependence on the mysterious force and rule

of nature, — of that which is beyond the experience of sense. It causes us from its situation to look up, and speak of high things, — to sink upon the knee, and to bend before the semblance of power and majesty. Uninformed and misdirected, we personify,* humanize, materialize, the object of this sense; and thus we find that the highest feelings, as well as those which we call the lowest, have lived through periods of misdirection and idol worship. Much of what is called Spiritualism, is to my mind but image worship, and most objectionably material. On each side of this central organ are faculties inducing Hopefulness and Joy, associated with a sense of progress and perfection. Near to the love of Labor is a sense of Motion irrespective of muscular effort. In this region it is, that power or mind becomes embodied under the idea of spirit, and seems to take wing; and we speak with reason of the flight of the imagination; for this sense of motion following the central faculty, carrying us soaring upwards in space, we look up towards an imagined Heaven, and speak of high things: though, in a few hours, what was above is now below. When the temporary excitement (which may, at any time, be induced under mesmerism) passes away, we lose our wings: the spirit, as it were, seems to desert us; and we are content with our fair world again, and the good things and the good people that it contains. From this sense

* Appendix C.

of power extends the organ of Benevolence, reaching down to the organ of Comparison; — resting there, like a crown placed upon the intellect, and pointing out the highest morality and first duty of man, — to make others happy, and advance the general good. There is Ideality joining also to the intellect lower down, bidding us elevate, refine, and embellish life by real excellence and beauty; and lower down is the Constructive faculty, enabling us to construct what is required for use, comfort, and elegance. — On each side of Benevolence is Imitation, — the faculty appropriate to the fine arts, which aids us to sympathize with, and enter into the spirit of, all we see. — On each side of this, again, is Wonder, delighting in all that is new and surprising. It lifts us from the world of commonplace. There is nothing more observable in a character, than the deficiency of this faculty. There is a fall, at once, from poetry to the prosaic. The Eye of the Mind I have already pointed out as extending from behind Comparison, beneath Benevolence, joining with the Conscious faculty, which is beneath the central external organ we have spoken of. Beneath Firmness is Will, — the executive minister of the mind, adjoining the Conscious faculty: — as also, I conceive, the sense of Being, or of Personality. Nearer to the Will is the faculty of Attention. Consciousness may act alone, — or almost alone; and the other powers may act without our consciousness.

Behind Firmness is Self-esteem, or Self-reliance;

on each side of which is the Love of Approbation. Acting with the Conscientious faculty, these cause us to seek self-approval, and the approval only of the discerning; and for our just merits — the recognition only of what is true. Behind this faculty of self-sufficiency, is that of Concentration, or the ability to gather up the strength, and combine the faculties, for one effort. It induces a sense of power, and often, with Self-esteem, makes men fancy they are equal to any thing.

Lastly, we come to the group of the organs of the Affections. The love of Children and of whatever presents child-like qualities is in the centre; and beneath this lies love, or the desire of Union, — marriage, — the blending and sympathy of two minds in one existence. This faculty lies immediately over that portion of the cerebellum appropriate to the physical sense and condition of love. On each side of the Love of Children is Friendship, or ordinary attachment.

Here then ends a rough sketch of the faculties, as far as I have observed, and in the light in which I at present view them. With a phrenological bust before you, you will at once see what are the new faculties and their situation. Doubtless there is very much to ascertain yet before we complete the physiology of the brain: but, in the mean time, every fact and every hint is of use; and every landmark we can establish is so much security gained in our researches.

Consciousness being discovered to be a separate

power, we can more easily understand how so much is often worked out by the brain without consciousness, or conscious Will. We shall see the reason why the part in which the organ is situated is the most sensitive we can apply ourselves to for the purpose of waking a somnambule, or casting him into a deeper sleep, or changing his conscious state. We shall understand how it is that somnambules feel the mesmeric power creeping over the brain until it reaches this part; and that then they immediately lose consciousness; and how it is that persons who cannot sleep so often feel an action or pain in that part: and also how they feel pain (as I have often done) on being greatly disturbed during sleep, or when endeavoring to sleep, or when suddenly awakened. We shall better understand also the laws of will and choice and judgment by considering the relations of these new powers, and why we have a love of labor, and a satisfaction in industry, and how every one is born to work. We shall be able better to distinguish the character of different intellects, and to estimate the varied conditions of Love. We shall perceive how it is that we dream of flying, or of moving through the air without exertion. Dreams will become intelligible in all their various aspects. We shall understand why we experience pain so often in the brow, over the eyes, and this again in nnection with pain in the cerebellum; even why frown, and half close the eye, and put the hand he eyes on experiencing pain, or witnessing it

in others. Phrenology in fact will now, I think, begin to show its own worth and truth in accounting more clearly for many of the before inexplicable phenomena of our nature. These new organs, like those of Gall, have been discovered one by one, without anticipation. Let us now see how, upon a general view, they seem to form a harmony, — a consistent whole. This is an aspect of the subject on which I have meditated long; and I may say with continued interest and satisfaction.

I fear that I shall convey to you but a very slight and imperfect idea of the general arrangement of the brain. In time, this wondrous organ,* this world of thought, will be depicted in all its relations and characteristics, after the manner of the physical Atlas. Then we shall have a true chart of the philosophy of the mind.

In the first place I may say that I find the Perceptive organs in close approximation to the instruments of sense to which they relate; and again, to the object or end to which both refer. The reason is this: — that the force and attention thrown in any direction put that portion of the frame in action, or in tension for action, at the same time; or, as it were, with the same effort. The organs,

* "Saw Majendie, who seems afraid of venturing on his experiments in London, lest hare-hunters should cry out against him for cruelty. Some of his late observations on the brains of animals look as if the veil might be raised, which has hid the great secrets of nature." — *Sir J. Mackintosh, Life*, II. p. 413.

for instance, appropriate to perception by sight are situated immediately round over the eyes; the organs of Light and Colors being in the centre over each eye: and the faculties depending on these first perceptions are higher and higher up, just as the faculty is less and less concerned in the first or direct vision of objects. The same principle of arrangement we find in the viscera or organs situated within the lower body; a fitness in the relative position of the parts. There is but a limited quantity of nervous force and power of attention or sustainment in the brain; and this cannot well be used in two directions at once. The organ of Sound is close upon the apparatus of the ear; but the sense by which we discriminate the qualities of sound, and by this the characters of external objects, is near to the corner of the brow; and when stimulated to listen, presses forward in the direction of the sound; it being a law of the brain that the head follows the excited organ; and this in the direction of its object. This position with regard to the faculty of sounds is the best possible for the ear to catch sounds, and for the eye at the same time to recognize the cause of the sound. A similar relation or law I observe in connection with all the senses and other faculties. The sense of Hunger I find the nearest point of the brain to the stomach; and Taste is over the palate, and Smell above, and in the direction of the apparatus of the nose. Language is close over the organ of the voice. Those senses relating to the

body generally, and not to a local function, and those of touch, are, you perceive, among the inner convolutions, at the base of the brain. The Mental Eye is an inner convolution, central, and immediately behind the intellectual faculties. Consciousness is an inner and the most central faculty of all, as relating to all; whilst the acting minister, the Will, stands behind, adjoining to the Concentrative power, and with Firmness above. Those organs acting mostly together are situated together. The Affections are a group by themselves; with the Concentrative power above, and the Sensual faculties below. When men have been wandering amidst spiritual fancies, or are following the intellect too long, the affections draw them back to home and friends, and let the fatigued organs repose. We find again Ideality bordering upon the sense of Order and Harmony. The Intellectual faculties are together in front. The Destructive and Opposing faculties again are together, with their instrument, the Muscular faculties, immediately behind, but with Caution and Secretiveness holding a check upon them above.

An objection might be made to this view, that the organs are double; and the side organs, — Ideality, for instance, — are widely apart. This is true: but then we must remember (and here the exception may prove the rule), that we usually think only on one side of the brain at a time, except under great excitement. But the organs most used, and more frequently required to act

together, are nearer to the central line, where the two organs come in close contact, with slight partitions between. And if we consider those central organs, that is, from Individuality over the nose round over the head to Love, we shall find a purpose or reason for these organs being central. Individuality relates to the whole, of which Color, Space, Weight, &c., are but qualities. It is a kind of abstract; and adjoining and around it are Size, Form, Locality, &c. And certainly you can hardly recognize an object without a sense of its position, form and size.

The next central organ recognizes events, irrespective of particulars. Above lies Comparison, — the sense of resemblance, suggesting unity from the analogy of knowledge. Beneath is the Eye of the Mind, — the abstract Mind; — and then Consciousness, or central being; — Benevolence, contemplating universal happiness; — and then the sense of universal Power, Rule, and the dependence consequent on these. Then Firmness, like a central hold or prop: — the Will and Concentrative faculty; — and Self-reliance, — and Love; all central powers involving unity or oneness.

The faculties of the Coronal region are all those furthest removed from sense impressions and bodily relations, with Consciousness deep in the midst, and ining upon that faculty which has the power (at ist under certain conditions) of acting indendently of the ordinary processes of sense and n; and in which perception and judgment may

be said to become one. The cerebellum, on the contrary, having specially to do with the bodily conditions, is situated behind and beneath all the rest. The Muscular powers form the lateral portions, with their master passions, Combativeness and Destructiveness, immediately above; the limbs, and the organs to which they chiefly relate, being also lateral organs; particularly the organs requiring the muscular sense and direction most. I think you will perceive that it is only by tracing out these relations, or laws of position, that we shall discover a clew, whereby to find our way through all the difficulties of Comparative Anatomy. It appears, also, that the lower side of the cerebellum has most to do with the activity of the body, and the upper side with the senses, — these senses bearing a relation to the intellect, as well as to the bodily conditions. The lateral portions more particularly of the cerebellum, the muscular organs, are united together by the Pons Varolii; and with its fibres are interlaced the nerves of motion which pass down the spinal column. These nerves, for the most part, cross to the opposite side of the body; thus forming the most complete means of varied action. This crossing of the nerves may account for the tendency we have to cross the legs and fold the arms.

The central portion of the cerebellum, having to do with the secretions and general condition of the body and nerves, as regards health, &c., communicates with the body by a thick cord of nerve,

forming the back portion of the spinal column — communicating by another cord with the brain and nerves of sense. From its function, we should expect to find this part the first that is formed in the fœtus: and this is the case. The brain of the fœtus "consists, about the second month, chiefly of the mesial parts of the cerebellum, corpora quadrigemina, &c.," and goes on expanding, as it were, from this into the other parts of the convolutions.* But without going further, (and I fear I have been too lengthy already,) I think I am now justified in saying that the views of phrenologists, and these additions of mine, are in accordance with the results of anatomy, and present a remarkable show of consistent relations.

We have now gone over, in a hasty way, what I regard as the means of discovering the functions of the brain, and what I have as yet discovered through the use of these means. What I have advanced, I give simply as my opinions, and as suggestion to others. I appeal to Nature as known by the facts before us. I have nothing to say to any one's reasonings † upon the question, unless they are sup-

* See Fletcher's Rudiments of Physiology, quoted in "Vestiges," p. 226.

† Galileo writes to a friend, "O! my dear Kepler, how I wish
ould have one hearty laugh together! Here at Padua
ipal Professor of Philosophy, whom I have repeatedly
y requested to look at the moon and planets through
hich he pertinaciously refuses to do. Why are you
What shouts of laughter we should have at this glo-
And to hear the Professor of Philosophy at Pisa

ported by facts, and by a knowledge of the matters to which I refer.

I have written so long a letter, that I will not remark upon the excellent instances you give me in your last note. It is such material we want.

XI.

DR. HOWE'S REPORT ON IDIOCY.

H. M. TO H. G. A.

I WAS just going to write to you yesterday, when I took up Dr. Howe's Report to the Legislature of Massachusetts on Idiocy: and I found it so interesting, that I could not put pen to paper till I had gone through it. One of the best things in it is the quiet exhibition of the mess made by Law, Medicine, and Philosophy, of the statement of the case of idiots. One would think nothing could be done in the legal direction without some definition or description of Idiocy which might be of pretty general application to the class of the imbecile: but nothing can be more loose, and, at the same time, limited, than the description that English and American law give of an idiot. The philosophers

laboring before the Grand Duke with logical arguments, as if with magical incantations to charm the new planets out of the sky!" — *Galileo to Kepler.*

who have attempted to define do no better. Proceeding from the idea that the mind is one thing, and the body another, only arbitrarily connected with it, and entangled by the notion of freewill, they talk in the most confused manner of weakness of the understanding as accounting for failure of the affections; — of weakness in that connection which should bring the other faculties under the control of the will; and so on, till one wonders whether the writers really believed that they had any clear idea in their minds when they wrote what was so vague and utterly unsubstantial.

Here we have the law saying, that a man is an idiot, "if he has not any use of reason: as if he cannot count twenty pence:" "if he has no understanding to tell his age; or who is his father or mother." Yet, again, it says, "a man shall not be called an idiot if he has the understanding to learn or know letters:" whereas, one of the most utterly silly and helpless idiots conceivable (in regard to matters contemplated by the laws), was a man whom I knew when he was upwards of thirty, whose delight was to copy upon a slate the Scripture lessons and hymns of the preceding Sunday. He could read, write, and even spell well (though deficient from birth), while he had no power of apprehending, in the slightest degree, the meaning of what he wrote.

It must yield a sweet kind of amusement to Dr. Howe to read what Blackstone says on this matter. You know Dr. Howe is the benefactor of Laura

Bridgman and Oliver Caswell, the girl and boy who are actually without eyes and ears — deaf, dumb and blind, and Laura, if not Oliver, nearly or quite destitute of the senses of smell and taste, while, by Dr. Howe's singular wisdom and patience, they are educated into a high degree of intelligence. "A man," says Blackstone, "who is born deaf, and dumb, and blind, is looked upon by the law as in the same state with an idiot; he being supposed incapable of any understanding, as wanting all those senses which furnish human beings with ideas." Rejecting the dogmas of metaphysicians, and disbelieving that Ideas are the relics of Sensations, Dr. Howe examined nature, and he seems certainly to have found, in the case of these two children, that, as you say, "the entire perceptive power is within the brain;" and that the senses are only ordinary conditions, which may be dispensed with, if the brain organ can be reached by another avenue. I wish this medley of legal definitions and metaphysical assumptions could be exposed with us, as this Report exposes it in the United States. It is a very serious matter that the legal descriptions of imbeciles should be such as will not stand for a moment against objections: and I have no doubt we shall soon hear of the Legislature of Massachusetts having brought up their law (in this department) to the level of such science as we have, declaring what kind and degree of deficiency renders a man incapable of civil functions, and a fit object for the protection of the State, from his

inability to take care of himself, without insisting on his being unable to count, or to learn his letters, or to tell his own age.

Next we come to the endless classifications, by the doctors, of mental diseases. Considering, after the philosophers, the mind to be a unit, they take its morbid manifestations for so many essential varieties of disease; and here we have, accordingly, a great array of genera, species, and varieties, — much as if we were set to work to classify the changes on a peal of bells, and conclude each change to notify the bringing to bear some new influence upon the peal. Then we have the disputes and hair-splittings about Instinct and Reason, and the difficulties which arise from the supposition of Man having an ethereal or immaterial soul; in the face of all possible evidence that he is occasionally as truly moved by Instinct* as the trout, or the bee, or the beaver. After all this, I need hardly say that Dr. Howe is a phrenologist. He could not conduct his inquiry avowedly on the principles of that science, or base his report on results so obtained. He was evidently not free to do so; but it matters little: for he could hardly have done more for the science, or perhaps the science for his object, than we see in the volume he has given us. To me it seems that he is not yet so sound as he might be. He encumbers himself with the unphilosophical notion of an ulterior Spirit or Soul which

* Appendix D.

uses the brain as its "instrument;" even while he points out the errors that have arisen from "considering the mind a unit, and not admitting the plurality and independence of its faculties." But, though it seems to us that he might take a clearer and higher position than he does, his superiority to the doctors, metaphysicians, and lawyers, that have gone over the ground before him, is really exhilarating to behold: and this superiority manifests itself (among other ways) by a simple method of statement, whose quietness is, in itself, irony. As here — "In a few instances," (among the almshouses of Massachusetts,) "men of strong natural sense and of humanity, reflecting that idiots of the lowest grade do not differ materially in intelligence from the higher animals, have ceased to blame or punish them, for waywardness or misbehavior, any more than they would punish animals for the like causes; and they have substituted kindness of treatment and constant employment for the old modes of punishment and confinement." A quiet introduction of necessarian discipline, is it not? As I seem to have set in for a rambling letter, I must tell you one anecdote out of this Report, which appears to me charming. One poor idiot who had, as will be seen, several faculties in working order, but no "sense," as we should say, and some vexatious habits, was punished for his misbehavior, from his infancy upwards. The floggings and railings naturally roused violence in him; and by degrees, one after another of the household became unable

provinces and relations of the faculties will come out, in the course of our survey. As far as I see, the system you indicate does indeed, as you say, "present a most remarkable show of consistent relations."

Do you continue disposed to go on next to the evidences derivable from deficient senses and defective or impaired organs? Dr. Howe is strong upon the point that our only effectual knowledge of structure and function is had from observation of disease or deficiency. The exclusive study of the healthy and perfect may go on for centuries comparatively without result.

XII.

THE SENSES AND NERVOUS SYSTEM.

H. G. A. TO H. M.

MAN appearing to be the highest development of nature, and his mind being evolved from this development, — a glimmering light in the midst of infinite darkness, nevertheless in its inter-relations presenting, as far as it goes, a true impress of what is, (and, if not true in relation to the universe and to absolute truth, at least true in relation to Man, and as a corresponding harmony, which is all that we need desire,) — it is reasonable to suppose that

Man in his completed growth would possess as many channels of sense as there are different characteristics in external nature and his own body, or distinct energies or emotions arising from such conditions. But possibly Man has not yet arrived at his fullest development; and some of his powers or sense channels may be still more or less in a state of partial growth, or dormant. The entire body may be considered as the organ of sense; eye, nose, mouth, ear, skin, flesh, bones, muscles, &c.; or rather, the nerves and nervous condition ramifying and filling, as it were, all parts of the body. Even the brain itself is an organ of sense, as well as being the centre at which all sense impressions arrive, and from which all sensations are evolved. The elementary outward senses are said to be from Light, Sound, Taste, Smell, and Feeling. But under the term Feeling we lump together several distinct faculties, — such as touch, sense of temperature, sense of pleasure and pain, and the muscular sensations. Sight may be said to be the most spiritual sense; and then hearing; while smell and taste may be almost classed with the feelings.

By the sense of sight we perceive colors, and light and shade; and through this, objects, forms, spaces, localities, arrangement, number, surface, construction, motion, events, resemblance, natural language, and signs visible. By the ear we perceive simple sounds or noise, tones and harmony; and we perceive also, or, as some would say, judge of,

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the distance, locality and quality of objects; and, by the voice, indicate our meanings and conditions, by natural expressions, or by artificial language, or sounds corresponding with nature, gesture, and artificial signs visible. The Muscular sense relates to the health and energy, passive or active, of the muscular system, or of any part of this, and recognizes fatigue and lassitude. In this sense we may include the sense of action and position; and from the recognition of force by the muscles arises the sense of Weight, by which we become aware of the force of gravity in our own bodies, and in external objects. The sense of Temperature must surely be considered distinct from the Muscular sense; and so also that of Touch, by which we recognize surface and forms. And so also the sense of pleasure and pain. The tic and the toothache are certainly no more touch or muscular sense than is taste or smell. The sexual sense may be considered a division of the sense of pleasure, or that faculty which, for distinction's sake, has been termed Common Sensation. We must note all the different characters of this sense; nervous pain, — or pain from diseased parts, or deranged functions, and irregular action; the pain from a cut, from a bruise, a burn, tickling, &c. Now, for instance, it is remarkable that the convolutions of the brain, though not sensible of mechanical injury, are sensible of diseased condition, and sympathize with the condition of other parts, — of the stomach, for instance, experience great pain which is not felt in the

diseased parts. Thus, the pain from mechanical injury and from deranged condition must be distinct; — for instance, the toothache and the drawing of the tooth. We have aches and acute pains; local and general sensations. A pain from external injury would, as relating to matter out of the body, have more to do with the faculties of the anterior lobe, situated between Weight and Constructiveness, where is the group of organs relating to manipulations, and adjustment of the muscular movements to an end. We have also the burning sense of fever and chill, with other modifications, besides what sense we may have of electric, magnetic, or chemical conditions, and other higher matters. Thus the senses, or distinct channels of sense that we must recognize, are Sight, Hearing, Taste, Smell, Touch, the Muscular sense, Temperature, and the class which compose what we call Common Sensation; — making eight in all: and if we include, as we ought, a Magnetic sense, we shall reckon nine. Now, all these senses may exist separately, or in various combinations, in deficiency or excess; as it is with the organs of the brain, which together constitute the diversity of character; and differences suited for all situations, with the two extremes of idiocy on the one side, and genius on the other.

In the deficiency or excess of some perceptions, it is often difficult to say whether it is the sense condition or the brain that is in fault. It becomes important, again, to consider how the exaltation

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and use of one faculty depresses others; and how the depression of one faculty will exalt others, or give them a more sustained force, or new direction and power. We know now by numerous instances of casts taken at different periods of life, that any organ or organs of the brain by use will increase, and by inactivity decrease, just as it is with the muscles; but to a greater extent. Thus we have the means of actually remodelling a man's brain, as well as of destroying habits, and giving knowledge, and new direction to the faculties. This sounds very hopeful. But why so? Because we have searched into fundamental and material causes, and have perceived (within a certain range) the conditions* and laws which determine our thoughts and actions. Without determining laws† there could be no hope, and no regenerating principle; and all teaching, preaching, and training, would be useless.

We will now consider a few of those facts which occur to me as throwing light upon the nature of the senses. And first, let us look at that strange little animal, the Bat, — that twin oddity with the Ornithorhynchus: for it seems that we shall find most light amidst what is strange, unusual, and eccentric; — amidst all that deviates from the bal-

* "Man, the servant and interpreter of Nature, does and understands as much as he shall really or mentally observe of the order of nature; himself, meanwhile, enclosed around by the order of nature." — *Bacon, Conditions of Man.*

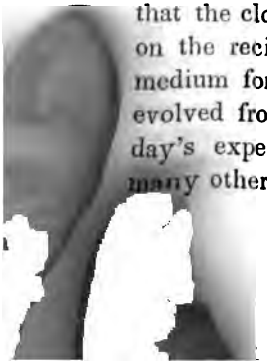
† Appendix E.

ance and ordinary form of nature. We shall no longer be entangled by the cobwebs of learning which men spin out from their own thoughts,* working under the lamp. The philosopher must be seen † in dissecting rooms, and museums, and menageries, in hospitals and lunatic asylums, and prisons. But on that, I believe, we are agreed. You remember, perhaps, that Spallanzani extracted the eyes of bats, and covered the empty sockets with leather, and that, nevertheless, these animals continued, in their flight, to avoid every obstacle; and would pass in and out through small openings, and amidst wires, with the nicest precision. It is stated in a note to the English translation of Blumenbach, that the same happened when the eyes, ears, and nose were all closed. I may observe, besides, that bats are particularly strong on the wing, and able to turn rapidly in their evolutions, from the power which they have over the management of their wings. They must, therefore, possess great muscular power, and a nice muscular or

* "When any one prepares himself for discovery, he first inquires and obtains a full account of all that has been said on the subject by others, then adds his own reflections, and stirs up, and, as it were, invokes his own spirit, after much mental labor to disclose its oracles. All which is a method without foundation, and merely turns on opinion." — *Bacon, Nov. Org., Aph.* 82.

† "Hippocrates, the famous physician, lived a hundred and four years, and approved and credited his own art by so long a life as a man that completed learning and wisdom together, very conversant in experience and observation, one that hunted not after words or methods, but severed the very nerves of science, and so propounded them." — *Bacon.*

tactile sense; and, accordingly, we find the lateral portions of the cerebellum greatly developed: which is not the case in birds. The bat's wing is almost a hand as well as a wing. Where animals are differently constituted, with the organs of motion or power more central or otherwise, we should expect to find a corresponding position of the muscular power, according to the rule which I explained in my last. We must remember that many blind persons have possessed a similar power to that of the blinded bat, and are able to avoid obstacles, and to move among chairs and tables, even in a strange apartment, without touching them. I had once a very remarkable patient, a somnambule, who, with the eyes closed, could easily read any writing I gave her. She read it from the top of her head, or when placed on her hand, or, in fact, from any part of her body: and it was to be noticed in this case, that the more tightly you pressed upon her eyes, the more clearly she could see: or she would press upon them herself. Now, the ordinary recipient of light is the eyes; and of heat, the whole surface: but light and heat are only differing conditions of the same influence. It is not, therefore, difficult to conceive that the closed eye sense might produce a change on the recipient of heat, and thus effect a new medium for itself. Or the sense of light may be evolved from heat or magnetic conditions, as Faraday's experiments may show. This lady, like many other somnambules and blind persons, would



walk and even run between objects placed confusedly about the house and garden, without ever stumbling, or falling against them. Her eyes were always closed, and turned up and inwards. The case was the same if the face was closely covered. On one occasion she remained in the sleep-waking state for three days and nights. This was a young lady staying with my mother and sisters; and I may say, that no one, however sceptical, doubted *clairvoyance* after seeing this case. The clear evidence and daylight facts were too strong for scepticism itself.

Bacon seems strongly impressed with the fact (for he repeats it several times) that "in the removing of cataracts of the eyes, the little silver needle wherewith the cataracts are removed, even when it moveth upon the pupil, within the coat of the eye, is excellently seen." I may here observe, what a wrong conclusion has been drawn from those cases in which sight has been given by an operation; as in the young man performed on by Cheselden. The retina and optic nerve, and the cerebral organ relating to the sense, would only gradually, by exercise, obtain the physical health and practised condition necessary to the full and correct discharge of the function. The relation with the great ganglia of nervous supply in the brain, and with the cerebellum also, requires time to be fully established. In Man, the senses gradually progress. First, is Taste; then Smell and Hearing; and then Sight: but the eye, when complete, has its own power,

without the education or existence of the other senses, of judging or perceiving objects, — their size, locality, and distance. The chick, and duckling, and lamb, have the power of sight and motion almost in a complete condition on first tumbling into the world. No doubt, touch is a help to the eye, but only when the eye is deceived by reflection and refraction; or if otherwise imperfect. I have a blind friend who sees in her sleep. She is a lady about forty, of great intelligence — one of three sisters, all blind from birth. Among other peculiarities, this lady tells me that she always sees in her sleep; — in her natural sleep. She has never been mesmerized. This lady is so honorable, so benevolent, and of such acknowledged excellent good sense, that all idea of her deceiving one is out of the question; and the fact of her seeing in her sleep has long been known to her family. It may seem difficult to say how such a fact can be known; but I have elicited what is, for my own part, satisfactory to me. She says that the perception she has in her sleep is intense and clear, and quite distinct from all other impressions, and ideas arising from them. She has a sense of the chair, she says, from touch; and the idea of this sense: but her vision of form is totally different from the touch impression, though seeming to include it. She sees colors, and light and dark; describes their effects, and the similitude of those effects to musical sounds. She likens the sparkling light to the brilliant music, and shade to the graver sounds.

She describes the distinction between light and shade and colors, and the relation of light and dark to colors and forms and feeling. She pictures the effect of light and shade on objects, and describes the different qualities of colors, and their harmony in relation to the feelings. She sees the deep blue sky, the agreeable green of the grass, the sparkling on the water, and the glare of the white clouds, and simple light of the sun: and this sense in all varieties is wholly distinct from any other sense of perception she has when she is awake. She sees distance and space in a broad survey of a landscape at once, so different from any idea she could form from touch, and from moving about. It seems to me clear that she has a new sense opened to her in her sleep, which answers to those effects and relations that we perceive in seeing, and which is in fact Sight. But this is not all. This lady is *clairvoyante* in other respects, and frequently in her sleep perceives what is going on in distant places; and she also foresees events. With this fact her family are familiar; and many striking occurrences have happened, precisely as she has foreseen them: and in such visions she perceives forms and colors such as no one could have guessed at, such as the different colors of a person's dress: and she is invariably found to be correct. Is not this case, therefore, doubly conclusive? If this lady could have her eyesight given her, she could not only say that red was different from green, but which was red and which green: so that the boy in the

celebrated story related by Hobbes might not, after all, have been an impostor.

There are persons who cannot distinguish colors, though in other respects their eyesight is good. I had a friend who could not tell red from green, and therefore could not describe the relations and harmonies of colors, as this blind lady can. It is important to note that impressions are made through the senses which do not at the time influence, but which remain latent, and afterwards become conscious perception. It is clear also that impressions do emanate from all objects in the dark. Witness the experiments of Möser, wherein impressions of objects are made on bright metal plates in complete darkness; but, like the latent perceptions, are not seen on the plate until called forth by submitting the plate to a new condition. Some persons do not hear at all the sharp note of the grasshopper, whilst others are equally insensible to the lowest tones of an organ or piano; and yet to each the perceptions of intermediate sounds may be equally perfect. The ear, like the eye, enables us to judge of distance and locality; but it is important to note that the membrane of the tympanum, and the chain of bones of the ear, may be lost without the hearing being destroyed.

It is a pretty simile, and a very ancient one, — that which likens a man to a musical instrument, and the mind to music. A harp or guitar in a room where people are conversing will often mingle its notes in the conversation: and the note of one

instrument sounding will cause a response from a corresponding note in another instrument. How similar is this to the sympathy which may be induced, and which often spontaneously occurs in love, and otherwise between two minds and bodies! Petrarch absorbed the disease from the eye of Laura by gazing upon her. Now, when we observe such sympathy and respondings to occur throughout nature, we may see that it is not necessary that impressions should run along the nerves into the brain; and we may the better conceive how each sense, like the strings of a guitar, responds to that motion of which it is the parallel, and the brain organ again to this. Indeed, it is difficult, I should say impossible, to conceive how all the variety of differences in form, position, color, &c., which we receive in one perception, could run through a nerve. Yet we know what a multitude of motions, so to speak, occur in one medium at one time. The ray or energy from every object, and every part and point of such object, with all the differences in color, light and shade, &c., must exist at the same instant in every point of space within their influence. Light, heat, colors in all shades and varieties, smells, magnetic virtues, — all these together can hang in the air, and all in each point of the space at the same time, and without disturbing sounds which exist in the same way, and in the same places. The marvel of this makes *clairvoyance* seem simple and natural, — a common affair. The different senses seem to pick out, or be influ-

enced each by its class of motions: they seem essential for life and practice, and to prevent confusion and excess, but certainly not to be necessary conditions of perception.

I have myself been aware of a sense like that which has been instanced above. At one time, I had a singular perception or consciousness, when approaching my door at night, of letters lying on my table, which had come during my absence. I perceived their number, sizes, general import, and from whom they were. This was no fancy of mine; for I long doubted whether it were any thing more than guessing and coincidence: but then, the perception or sight of them was different from the image we form in the mere idea of things. At length one evening, I saw very distinctly, when a few steps from my door, two letters on my table; and from the same person. Now, I thought, this will show me that these perceptions are crude fancies; for I had received a letter from the same person the day before; and it was out of all probability that there should be two more letters the next day from the same person, by the same post. On entering the room, there were the two letters, sure enough, and lying precisely as I had seen them: and I must say it made me start; for this I could not suppose to be a coincidence. — Again, to give you another piece of my experience, in relation to sympathetic qualities of the human frame, — I you, I think, of the sense of pain which I had y hand when I had been removing severe pain

by mesmerism. The patient would shrink from me, as from an infected person; or, if I accidentally touched such patients, my hand would burn them, as they said, with pain, until I had washed my hands. I have thus taken a pain from one part, held it in my hand, as it were, and then planted it in another part of the patient, and it has gone out from me. And, as I have healed others without their knowledge, so have I found the power taken out of me by one requiring it, without my will or knowledge. On holding letters from my patients, I have felt pain or other sensations in my hands, and have thus been enabled to judge of the condition of my patient. This may seem incredible to some: but so it has been. On one occasion, I was demesmerizing a patient; and the influence seemed to pass into a lady standing close by. The patient woke; but the other ran screaming away, like one possessed; and I thought of the devils cast into the herd of swine.

When considering the senses, we must not forget the sensitive plant, and how the state induced is communicated from leaf to leaf; and how much occurs in the animal economy from mere irritability, and the association of parts, by which combined actions are induced to an end, without consciousness or conscious will. Phrenologists consider Consciousness to be evolved in the action of every organ, and to be a necessary condition of such action. But this is a mistake, not only as regards actions in the body, but as regards the brain and

mind. The calculating boy Bidder was wholly unconscious of the process or steps by which he arrived at his results; nor as yet have we had a somnambule who can tell how he foresees events. All that such seers can say is that it is so, or that they are told so, or "it" tells them so; or the "voice" tells them so. And this opens a very important question in regard to this apparent second self, embodying the intuitive and unconscious higher condition. This voice and oracle of the mind is personified, and called a spirit or demon. It is called a possession; and out of it are evolved visions, revelations and religions. Socrates had his attendant spirit; and most original and great thinkers have, in one form or another, this intuitive faculty developed. Swedenborg is a great example. He was a great *clairvoyant;* but, in consequence of overwork as I suppose, from the sublime he slid into the ridiculous; from the normal into the abnormal state; from the genius into the madman. At any rate, he accepted his visions for realities; and sense and divination mingled strange matter together. He thought he saw the spirits of the dead, and he embodied the properties of things. He saw his sins fall out from him in the forms of reptiles crawling on the ground: and the principles of nature, the universal cause, the God, appeared to him, and spoke to him, in the form of an aged man. Consciousness and reason seem to hold a middle range, between mere energy of the senses and the higher sense, — of divination: for every

faculty of the mind is but a sense or instinct. In the trance, when the outer conditions of sense are dormant, this inner condition often becomes more highly developed, and appears to take the place of the outer senses; and we attain knowledge at first hand, as it were, and stand closer to the law and principle of things. But you seldom find this state pure and without the alloy of common impressions and dreaming. The intuitive state throws genius into our ordinary faculties; but our ordinary conditions often damage and confuse the intuitive sense: but some *clairvoyants* can analyze or perceive the limits and distinctions between the false impressions and true sight. But we are ascending too high. I saw a lady yesterday, who is unacquainted with phrenology and with my views, and who had had headache for the last week, accompanied by slight insensibility of the arm, on the same side as the headache. At one time, when she used to suffer from these headaches, the arm was almost insensible, and partly paralyzed. The pain is in the cerebellum, at the top, and nearer to the centre than the muscular power. You can cover the spot with your finger. It is also in the front lobe, behind the eye, in those perceptive powers relating to the bodily sensations which I have referred to. The pains never shift to the other side of the brain, or influence the other side of the body. The pain in the cerebellum is a duller pain or ache than that which is in front. These headaches are not bilious; or the pain would

extend to the gustative organs in front of the Destructive faculty. This lady has long been subject to these headaches, and medical men have tried their utmost to relieve them; but now they desist, and declare they can do nothing, and do not understand them. But a little mesmeric sleep, and treatment for half an hour, removes the evil; and it does not recur for weeks or months. This lady related to me an interesting fact also concerning the double nature of our faculties; that she could not get to sleep for a long time the night before, on account of two noises going on in her brain in different parts. She said that one was a sharper sound, and she pointed out the situation to me; and the other was a dull sound, in the position which I have noted as the organ of sound,—a faculty close upon the apparatus, or bony compartment of the ear. These sounds followed each other, beat after beat, and probably had to do with the pulsation. Of course, when there is any lost sense, we must examine the head. In you, for instance, I observe a most decided depression at the organ of taste, whilst the perceptive faculties, relating to visual impressions, ranging over the eyes, are strikingly prominent. What a contrast with so many who are blind!

I met with a curious instance lately of a fact well known, but always instructive in regard to the force of our absorbing or receptive power. A friend's gardener, after taking a few pinches of flour of sulphur, to sprinkle over a plant, and

cleansing his hands immediately afterwards, found how subtle was its influence through the system, and out again from his body, and through his clothes, so that the money in his pocket, and other metal about him, became tarnished. What is there now more subtle and wonderful in mesmeric action than this? Here the system receives a general influence which, though unfelt by the individual, is potent in its effects. Other substances will produce similar effects. I know a case of a lady who could not touch the brass knobs of her doors for some weeks, from their producing pain, and partly paralyzing the arm: and of another lady who was differently affected by the approach of various metals, and other substances. Medicines rubbed on her skin would produce precisely the same effects as if she had swallowed them. I know a whole family who are disagreeably affected by the near approach of iron. Some are aware of the presence of a cat, by a sensation experienced without seeing the animal.

From these instances, we may better comprehend the effects of minute triturated Homœopathic particles dissolved upon the tongue, — and especially when the system is in a particular condition in relation to any particular substance. One globule has caused me to have, in half an hour, a most intense headache. The trituration of the medicines probably gives them more force, and a new power to act. I have had patients mesmerized, who would be insensible even to the loss of a limb,

who would yet be moved to convulsive laughter by the approach of a piece of silver; and again, the laughter would be instantly stopped by the approach of a piece of steel to the part influenced by the silver. One metal will generally relieve the influence of another; and then, if continued, will produce its own effect;—a pretty exhibition of the Homœopathic law!

Light destroys light, but does not interfere with sounds; so likewise, in the animal system, two similar conditions cannot exist together: but that which produces the same condition would increase the disease, or bring it to a crisis, and so carry it off. And by mesmerism or otherwise, I think a state of disease in one person may be made to destroy a similar condition in another person.

The difficulty I see in mesmerism is, that the same medicine does not produce the same effect on different constitutions, or at different times: or a medicine may be useful only when succeeding in a particular order. But a somnambule judges by an instinct of the peculiar condition and constitution of the individual submitted; and thus measures the precise wants of the case. Some somnambules and other sensitive persons can perceive most delicate influences from metals, crystals, &c., as Baron Reichenbach's experiments* abundantly show us. They also perceive light emanating from certain

* Reichenbach's "Researches on Magnetism, &c., in their relations to the Vital Force," translated by Professor Gregory. 1850.

substances, and from the ends of the mesmerizer's fingers, or thrown off in flashes in the air. I had a patient who could see different colored lights, in a twisted form, from my drawing out (to use the technical term) from parts affected with different characters of disease; and would always see my face shining with light, like phosphorus; and would notice how bright or dark I looked, according to the state of health and force I was in. Somnambules often see through into themselves, as if they were all on fire, and perceive light emanating from the top of the head, or from any faculty in action: and more so under particular conditions of health. We must note cases of spontaneous combustion; and those of persons who cast off an influence which causes motion in surrounding objects. We all know that sparks come from the hair and clothes of some persons more readily than others. After I have been mesmerizing in cold weather, the shaking of my flannel waistcoat will throw out sparks by which I can see the time by my watch. A somnambule may be quite insensible to injury in his own person; and yet, if you cause pain to his mesmerizer, he will instantly feel the same in himself in the same part; though, in some instances, there is no more than a knowledge of the pain existing in his mesmerizer, and an anxiety and discomfort on his account. And the same in regard to other sensations.

In considering all the facts in relation to the sympathies and antipathies between individuals, or

the influences of one organized body upon another, we must not omit those important experiments of Matteucci's, by which it is clearly demonstrated that contractions are induced in the leg of a dead frog, even when severed from the body, by the excitement of another frog's leg close by: and Matteucci shows to demonstration that the induced contraction exists through an insulating layer, capable of intercepting not only the proper or muscular currents, but even that of the pile which excited the induced contraction. Induced contraction is then, he says, a phenomenon of induction of that unknown force which circulates in the nerves, and produces muscular contraction. It is transmitted through certain insulating substances, such as turpentine, oil, &c., but not through very thin plates of mica. He shows also that though electricity, heat, light, &c., are evolved by the muscular action, there is no evidence of electricity, or of an electric current in the nerves. The laws of the propagation of electricity require conditions which are not found in the nervous system. The propagation of the nervous force is interrupted by causes which would not produce a similar effect upon the electric current. Matteucci considers the nervous force to be due to "movements in the equilibrium of the ether distributed in the nerves:" and that there exists an analogy between light, heat, electricity, and the nervous force; and that the nervous force is capable of being transformed into electricity, under the influence of a peculiar structure of or-

gans; as exemplified in the muscular actions, and the influence evolved by electric fishes. But the whole of Matteucci's account must be studied to give a due appreciation of all the beauty and importance of these experiments.

Even more interesting than these, is the issue of a series of experiments which have of late engaged the attention of the venerable philosopher, Humboldt. "Occupied myself," he says* in a letter to Arago, "for more than half a century in this class of physiological researches, the discovery which I have announced has for me a vital interest. It is a phenomenon of LIFE, rendered sensible by a physical instrument." In his Annals of Chemistry for June 1849, Liebig relates a method by which unquestionable results, bearing upon this discovery, were obtained. In order to cause a variation of the magnetic needle, sixteen persons held each other's moistened hands, and simultaneously contracted their right arms; and then simultaneously their left; thus forming a circuit of strong electro-motive power. The effect on the needle was manifest; and opposite, according as the right or the left arm was contracted. The deflection reached 12°, any accidental influences being overborne by the intensity of the current. The aged Humboldt was not satisfied without effecting this result by his own volition. "Notwithstanding my advanced years," he says, "and the little strength I have in my arms,

* Humboldt's First Letter to Arago, 1850.

the deflections of the needle were very considerable: but they were naturally more so when the experiment was performed by M. J. Müller, or by M. Helmholtz, who are younger men." He says that "the fact is established beyond all question of doubt." — What can be more interesting than such a discovery as this? and what more serious and solemn than the indications it yields of new regions of discovery in regard to the essential relations of mind and matter?

But I am extending my notes too far, and must end. I will only advert to the common sense of pain so often experienced from a change of weather. I have a friend who is quite a barometer, and speaks with certainty of change in the weather many hours before it occurs.

Thus I have noted down a few instances which occur to me as matter which may interest you, and as an example of what I think we should collect together in an orderly way, as a true mode of attaining a knowledge of the senses in particular, and the nervous system in general. Men separate the sciences too much.* We must study them in connection, if we would attain to just views, and

* "If all which I have mentioned is not yet accomplished, it is because, neglecting the useful example of the ancient sages of Greece, men have separated from each other too far physiology, medicine, education, morals and legislation, instead of appreciating their natural relations; and still more, because there are few philosophical physicians, who can embrace the whole extent of their sphere of activity, and elevate themselves to the full dignity of their rank." — *Gall.*

general laws, and recognize the philosophy of Man in universal nature.

XIII.

ILLUSTRATIVE COMMENT.

H. M. TO H. G. A.

SOME parts of this last letter of yours please me greatly, and set one collecting one's experiences and old speculations under the new classifications in a way I enjoy. You must know I was a devout student of Hartley, all my youth through; and a clinging believer in him for long after I had passed my youth. It is astonishing to me now that I could admit without question his supposition that Man has two primary powers which are enough to account for every thing: the capacity for pleasure and pain, and the principle of association. He does not even seem to think of the desire of pleasure and the fear of pain, which surely do not come under either of his two heads. It is the exquisite *morale* of the man, his heavenly temper and holy conscientiousness, which lead one away to think as he thinks, and feel as he feels. — All the while, I was despising the Scotch metaphysicians — as I still think they deserve — for classifying and illustrating interminably, without having ascertained any basis whatever. Hartley had a grasp of some-

thing, however inadequate: they, of nothing, — unless, indeed, it were a clumsy method of declaring that Man has intuitions. — In the midst of all this, — in the midst of exhibitions of a sort of compartments of an immaterial Mind, called respectively Memory, Imagination, Judgment, and so on, stood out before me suddenly Dr. Thomas Brown's discovery of the Muscular Sense, — a curious piece of reality amidst a symmetrical array of suppositions! After this, one could never more be satisfied to lump together, under the name of one sense, things so different as perceptions of temperature, resistance, muscular ease or ache, and acute physical pain or pleasure, sensations of touch, &c. Now that we are released from the magical number five, in regard to the senses, we are free to recognize things as they are, — to number our faculties, and to enlarge the number, if occasion should arise, by the development of new — that is, hitherto unknown — faculties, which bear a relation to external things.

It is really vexatious that I cannot convey to you, or any one, what I think I have reason to rely on about this; — the existence of some faculty or faculties by which things can be known or conceived of apart from all aid whatever from the senses which usually coöperate in the presentment of ideas. You know that I preserve some distinct recollections, on awakening from the mesmeric trance, of the ideas presented in that state. Well: twice at last I have perceived matters so abstract as to owe elements whatever (as far as I could discover) to

the ordinary senses. For instance, — I believe there are no persons (not blind) who have any ideas whatever with which visual impressions are not more or less implicated. I have asked every body, for many years, — every body whom I thought capable of the requisite consciousness and analysis; and they all tell me that there is nothing so abstract but that they entertain some image inseparably connected with the thought. The days of the week, — the virtues and vices, — numbers, — geometrical truths, — even God, — all these have some visual appearance, under which they present themselves, — be it only their printed names. I have not had the opportunity of questioning the blind (from birth) about this: but I am assured by some who have, that they have the same experience derived from the other senses than that in which they are deficient. Now, in certain depths of the mesmeric state, I have received knowledge, or formed conceptions, devoid of all perceptible intermixture with sensible impressions. Of course, I cannot explain what they were, because they could be communicated only to a person in a similar state; and not by ordinary language at all. They have since (during five years) been gathering to themselves more and more visual elements; so that the experience remains only an affair of memory. But it is one which assuredly I can never forget. There is no pleasure that I would not forego to experience it again and often; — the conscious exercise of a new faculty. I wonder whether you saw (as I did)

lately, in a newspaper, an account of Wordsworth's rapture in once being able to smell a flower; — the only time in his life that the sense ever acted. I know what that is; for almost the same thing once happened to me: but it is nothing to the other experience I spoke of. The one occasions extreme and tumultuous amazement — (the first experience of a new sensation); — a sort of passionate delight, a conviction on the spot that we are only groping in a universe where we think every thing ours till a new primitive sensation comes to show us how far we are from comprehending * nature; and then, presently, we have had enough of it; we are tired of it, and turn to intellectual objects. You may like to know how it happened with me. I had not Wordsworth's good fortune, — to smell a flower. I was not well that day; — sat down to lunch with a family who were dining early on a leg of mutton. At the first mouthful of mutton, I poured out water hastily, and drank, — so prodigious, — so strong and so exquisite, — was the flavor. I went on eating with amazement and extraordinary relish; but I was obliged to take water after every mouthful. It occurred to me to try if I could smell. There was a bottle of Eau de Cologne on the mantel-piece. At first, I could make nothing of it; but after heating it, I could smell it; — not in the nose at

* "For Man's sense is falsely asserted to be the standard of things. On the contrary, all the perceptions, both of the sense and of the mind, bear reference to Man, and not to the universe." — *Bacon, Nov. Org., Aph.* 41.

all, — but a little way down the throat. It must have been really the scent; for it was no more like the sensation from taste than from color or sound. I was presently tired of it. But I was rather shocked to find myself reckoning on my dinner, — a great, late dinner that I was going to. I might have spared my anticipations; for by that time, every thing on my plate had become as tasteless as ever. There was nothing like this in the experience of the exercise of the new faculty: — no surprise, — no tumult first, or disgust afterwards. It was inexpressibly delightful, — both the matter apprehended, and the power of apprehension. Nothing in the experience of my life can at all compare with that of seeing the melting away of the forms, aspects and arrangements under which we ordinarily view nature, and its fusion into the system of forces which is presented to the intellect in the magnetic state. But there is no use in dwelling on an experience which is, from its nature, incommunicable. I have been led to speak of it now by what you have written of our having eight or nine or more senses, and of Man being yet probably far from fully developed.

Did you ever see Dr. Verity's book, in which he sets forth a theory and evidence that the physical structure and functions of the human being change with new stages of his civilization? Dr. Verity thinks that our nervous system was really a different thing a thousand years ago from what it is now; that either the structure itself has changed, or that

dormant powers have been brought into action. This is curious: and so is the doctrine of an eminent physician of my acquaintance, — that, the progression of Man being the aim of Providence, that progression is provided for by the gift of a new endowment from time to time; the last and greatest gift being that class of powers elicited by Mesmerism. Whether these physicians hold the personal progression to be cause or effect, they anticipate, as we do, further development. My own supposition is, that whatever powers we have, have always been *there:* and that what remains is for us to obtain control over them. All history abounds with traces of the Natural Magic which science shows, sooner or later, to be no magic at all; that is, exactly as much of a miracle as every thing else is, and no more. Thus, we have the daughter of Sesostris, who might be twin sister, as to powers, with Joan of Arc; and the cures of disease by gods and priests in heathen temples; and heathen oracles, and prophecy every where; and witchcraft, and love charms, and ghosts, and second sight; — all instances of the sympathy, and *clair-voyance* and *prévoyance* with which we are now familiar, and which science is tracing to their origin, or abiding-place in the brain. Now, if we ever obtain any thing like the control over the intuitive faculties which the wise mesmerizing phrenologist already holds over the moods and thoughts of the patients in a lunatic asylum,* how essentially

* Appendix F.

changed will be the conditions of human life! All science is changing the conditions of our life. See what Geology of itself (a science younger than I am, I believe) is doing! But how much more important, — how infinitely important in comparison, — must be the operation on the human lot of an advancing physiology! Only conceive of the time when men may at will have certain knowledge of things distant, and things future! To expect this is merely reasonable. We now obtain from somnambules, and from persons whose intuitive faculty acts (as we should say) spontaneously, (i. e. without the application of Mesmerism,) fragmentary though indisputable knowledge of transactions distant and future: and you and others are tracing out the locality of this power in the brain. You have found its locality; and you are collecting facts as to the conditions of its exercise. If, as I believe, a similar scientific procedure never yet failed to establish a power of control over the agent which was its subject, we cannot suppose that it will fail here. All influences seem to be tending to the reduction of Fortuity in human life and affairs. By this particular achievement, it may be well nigh abolished. One is tempted to go into a speculation upon what human life must or may be, on such terms: but the subject is too prodigious. It may be glorious to ponder in silence; but it is almost too great for discussion. For one thing, by the way, — how completely a matter of course will

then be that doctrine of Necessity,* which now appears so indisputable to you and me, but which one daily hears contested with a shallowness of reasoning, and a defiance of evidence, which make one wonder *when* evidence will be received on moral, as it is on most physical, questions!

It seems to me that the most significant thing you have ever written to me, — a thing as significant as any one ever wrote to any body, — is that your blind friend, — blind from birth, — has proved that she sees in her sleep by having been actually *prévoyante* of visible incidents. If you can establish this, — if proof, or sufficient testimony, of it can be duly recorded during her lifetime, it surely will be as vast a contribution to the science of Mind and of Man as has ever been afforded by any age. Can this be done? If not done already, will you not set about it immediately? You never in your life had so important a thing to do, and most likely never will again. Let us have proof that a person who never saw by the eye has declared any thing (not coming within the range of a guess) which was happening at a distance, or which happened at a future time, with incidents of color or form belonging thereto, and we have arrived at the greatest discovery ever made by accident or research.

I am thankful for what you tell me of your view in regard to the experience of persons using a sense for the first time, at a mature age, — as Cheselden's

* Appendix G.

patients and others. I might give you some illustrations here, too, — illustrations of how the external organ is a not indispensable apparatus for the exercise of the sense; but I am detaining you too long. You are aware that when mesmerized, I, deaf as I am, have occasionally heard otherwise than through the ear, — as somnambules are seen to read with the sole of the foot or the top of the forehead. And I could give you more evidence of the same kind unconnected with Mesmerism. But I have run on too long: and I want you to proceed to tell me what you think you know of the mutual action of different parts of the brain; by what laws, and in what modes, action of one part excites action in another; where the coöperation is constant, and where (as we should say) fortuitous. For instance, why it is that certain musical sounds and arrangement of such sounds arouse various affections and passions, — the same, at the same moment, in any number of persons, — as when the Æolian harp wails, and the war tones wake the spirit: and what you make of the great fact of the Association of Ideas.

XIV.

FACTS ABOUT THE SENSES UNDER VARIOUS CONDITIONS.

H. G. A. TO H. M.

I SUPPOSE that Hartley has been greatly overestimated, and that his philosophy was founded chiefly on a rather superficial generalization of Newton's theory of vibrating media. I do not wonder at your disrelish of the metaphysicians who have had no basis of agreement. Mind was divided and parcelled out into divisions or categories, by each writer as his fancy suggested, every one differing from the others, and each thinking himself most profound, and as certain of his position as any sectarian is of the evidence and principles of his particular faith. You would find several distinct faculties included under one term; and then a simple faculty split into several; or a mode of action taken for a primitive faculty. Thus Mind was divided into imaginary elements, just as Nature has been divided. Or you would find men building all the laws of Mind on some one fact, such as the principle of Association, — just as the laws of Nature were supposed to be included in the laws of Numbers. Thus Mind was fashioned into fanciful forms by the metaphysicians, while the physiologists were, on the other hand, slicing up the brain as they would a turnip, instead of unfold-

ing it, part from part, and nerve by nerve, so as to trace out its intimate union, relations, and true formation, and place in the scale of beings. Men judged the mind through the deceptive, uneven and varying mirror of their own idiosyncrasy and consciousness,* neglecting material causes, and having no true method, or means of escaping any of the fantastic notions which met them at every turn, and stood out there like ghostly things prompting only to deceive. It was Bacon who first set about clearing the road, and showing what were the dangers, and the helps required. But his admonitions have been neglected, and the consequence has been a confusion of ideas, resulting, since his time, in libraries filled with metaphysical works. Out of the whole of these you cannot derive any exposition of the means of founding a philosophy; — a natural philosophy, and true science of mind. Men have been careless of the admonition of Bacon, who declares in this striking passage, so fully confirmed, that "that which we have often said must here be specially repeated; namely, that if all the talents of every age had concurred, or shall hereafter concur; if the whole human race had applied, or shall apply, itself to philosophy; and the whole globe had consisted, or shall consist, of academies and colleges and schools of the learned, yet, without such a natural and experimental history as we shall now recommend, it

* Appendix H.

were impossible that any progress worthy of mankind should have been, or should hereafter be, made in philosophy and the sciences." But I trust that however humble any of our individual efforts may be, we are now entering on a new era of philosophy, which began with Gall's and Bell's discoveries; and that we may reasonably anticipate glorious results for the future. Far be it from me to put myself for a moment into comparison with any of the powerful thinkers and writers of this age, or of any other age: but we are admonished that a tortoise in the right way will beat a race-horse in the wrong. My only hope is in being in the right way; though it be a way trodden by few, forbidden by some, and opening to us a class of phenomena to be at first discredited. But Time, which is the Mother of Truth, will protect the truth in its infancy, until it grows into manhood, and rules in its turn forever and ever.

I am glad you do not think that I have forced the truth at all in separating the senses into so many divisions. Each distinct class of impressions, having a special relation, and being the result of a separate nervous apparatus appropriate to a special organ or organs in the brain, might perhaps be described as a separate sense. The feeling of the Muscular condition would therefore be a separate sense from that of Temperature, — assuming the existence of separate nerve channels. Much confusion has arisen in our notions of the senses. Montaigne calls a deception of the sense the fear a

man experiences when looking down from a secure but very elevated position, by which his apprehensions are excited, and his judgment is deceived: but I suppose all that is generally meant by the senses is the separate channels by which impressions are received; as the eye, the ear, the skin, the muscles, &c. Through the ear, we have perceptions by sound: through the eye, by light. If we strike the eye, or irritate the retina, all we get is light. A blow on the ear, or irritation of the nervous apparatus of the ear, gives a simple sound; and it is observable that these original conditions of sense are less real impressions than, so to speak, those impressions evolved from or through them. For instance, light and colors and sound do not exist out of the impression, but only indicate conditions; whereas, forms, spaces, localities and relations do exist, as they are perceived under ordinary circumstances: for these are the conditions perceived; and abstractedly, form by touch is the same as form perceived by sight, or through light. The further we advance from the sense, the higher and more complete the truth. Beauty, for instance, is a sense of completion, or the harmony of the relations consequent on the completion; or on the way to the ends of nature, — the sense, however, being subject to imperfection and deceptions, like all other impressions; and men see beauty in distortion, and distortion where they had seen only beauty: and this in morals, as well as in external qualities: because the true seeing requires harmony

within, as well as harmony without, the mind. Otherwise, the mind, as an uneven mirror, or as colored glass, will distort or color the object, however beautiful, and torture the truth into hideous and fantastic shapes. In recognizing this great truth, Bacon founded his philosophy, and the doctrine of the Idols.

One or several organs of the brain may be in excess; and this may produce genius, in a particular way: for numbers, for instance; or for musical sounds; or for construction. Or certain organs may be deficient; and then we have inability in particular directions; or more or less idiocy. It is with different men just as it is with different animals; and, as we more clearly perhaps perceive it, in a piano, where the whole may be out of tune, or any note, or number of notes. The tone and power of the organ depends also on the quality of the substance of the brain, arising from original constitution, or from external circumstances; the condition of the stomach, for example, or the air we breathe: or the mind may be twisted from its proper action and proportion by the influence of habit or example, or other similar causes. But, drunk or sober, mad or idiot, a man is at all times the result of his material condition, and the influences without. Some men are, as it were, a law unto themselves; while others by their nature are disposed to thieve and to murder. Some men are wolves by their nature, and some are lambs: and it is vain to talk of responsibility, as if men made

themselves what they are. "Can the Ethiopian change his skin, or the Leopard its spots?" "We do not quarrel with the stone that strikes us," says Bacon: nor shall we quarrel with men when we know Man's nature, and that he merely exhibits the laws of his being. But society must be protected from the evil-disposed; and we must seek to develop Men's nature to its full and true proportions. Men must be responsible to take the consequences of their acts; but not as if they could help their nature. Every thought and act is part of the development of nature, and of the history of the world, and of the universe, — of the eternal and undeviating law of laws, — of the fundamental but incomprehensible origin of things. I feel that I am as completely the result of my nature, and impelled to do what I do, as the needle to point to the north, or the puppet to move according as the string is pulled. It is the action of the powers among themselves which directs the will and controls or induces all the results of that thinking, feeling substance which I call Me. The substance wastes, and is supplied with fresh material; which fresh matter is immediately leavened with the condition of the old; in the same way that needles take the condition of the magnet. This substitution occurs in the horse, just as with his rider: hence a man or a horse does not remain the same man or horse at the end of seven years, but a similar one: just as a river is never the same, but only similar. It presents the same form, but only similar reflections

and other phenomena. So it is with Man, who is never the same, any more than the music from the piano is the same to-day that it was yesterday. Nature never rests; but all is action, change and growth. Apparent rest is but the balance of powers and motives restrained. There is no death, but only change. When the diamond becomes charcoal, that is the death of the diamond, but nothing is lost. It is but another form. There is no spirit of the diamond passing into space. The most disgusting thing — the rotting carcass — is but a change, a transmutation to other forms of beauty. That individuals suffer for the general good, is a law of nature and of life: but good and evil are only to the part, not to the whole. There is no mistake nor short-coming in nature. Whatever is, is right, and essential to the whole, and could not be otherwise than as it is. The deeper our study of nature, the more clearly is this fact recognized as being as fundamental and necessary as law itself. Whatever we clearly understand in nature, we perceive could not be otherwise than as it is: as that three cannot be one, or a square a circle. As we advance, every condition and law will be perceived to be necessary truth. — I can judge something of a man's character from his head. If I knew the whole laws of the mind, and the entire form of the brain, and if I could recognize the whole circumstances by which the individual would be influenced, and if my perceptions were equal to the task, every act and thought of the

man's life could be predicted. How do somnambules read the future, if it be not written in the present, and if the laws of the mind be not certain? A Shakspeare could not make himself an idiot, or an idiot a Shakspeare; or any one be what he is not, any more than an eel could become a horse, or Lord Brougham turn into a grasshopper. But enough on this theme. I have been carried away by the subject.

I spoke of the effect on the mind, of looking down from a great height. It is often asked why a person so situated feels as if he must fall; and even, in some instances, as if he were impelled to jump. It is simply that, in contemplating the act through fear, the mind and nerves are thrown into the same condition as if one were falling, and carry the will along with the sense of the act. It is a species of imitation, and allied to what we call fascination. It is a state which approaches to insanity; as in the case of those persons who, from imitation, and a morbid condition, throw themselves, one after another, from the Monument. "Some from fear in the dusk, see a bush to be the shape of a man." The eye is made the fool of the other senses. — Others, on taking up a razor, not being used to such instruments, feel as if they must destroy themselves. The thought puts them in the position of doing the act. This state becomes abnormal and fixed, when people feel sure they shall say or do some terrible thing, — as, that they must destroy themselves, or some one else. The

mind is off its balance; and the person becomes controlled by the force and fixedness of an idea. This may be continuous, or in fits. Executions diminish the respect for life, and stimulate the morbid tendency to destroy. The descriptions in the newspapers tend to brutalize society, and make us all worse. It is only knowledge of the Mind's laws, and the law of love, and exhibitions of goodness and mercy, that will reform the world. Inferior minds will doubtless always be influenced by rewards and punishments; but these rewards and punishments should be of a more wholesome character, and not such as brutalize, and encourage the selfish impulses. Preaching the horrors of a hell and eternal damnation, will never induce reverence for higher things, or reform the world.

Yes, I am aware that sound is received by other channels than the ear. A watch put in the mouth is not heard to tick until the teeth are closed upon it. But this effect may not be wholly different from putting the poker to the teakettle to hear it boil, by establishing a solid and better medium of sound than the ear. It has occurred to me to try another experiment. I close my ears with my fingers so that I cannot hear the slightest sound; but the moment I touch my forehead upon the watch, I hear the ticking distinctly. I think you told me that you heard a musical box with overpowering distinctness when placed on the head, while unable to hear any but confused sounds from it by the ear. The harder I press upon the ears, the better I hear

the watch. And this reminds me of my somnambule, who saw more distinctly by pressing upon the eyes. I find a note of this occurring to another patient to whom my instance was unknown. It is recorded that a child subject to fits could only hear during their continuance by the stomach being touched, and the voice directed to that part. Sir C. Bell relates a case of a man who was insensible to pain on pressure, who yet could feel inside his stomach by pressing on the outside. In Mesmerism it is common to find a patient sensible of internal though not of external pain; the internal parts being the last to lose sensibility. Can it be thought, then, so surprising that the large nervous apparatus connected with the stomach should become the medium of impressions to the brain, when the other channels are closed? To close the ears, and hear the watch tick from the head, seems to diminish the marvel. I noticed in my last how much of the apparatus of the ear might be removed without impairing hearing. It is also stated that "a patient having the pupil immovable sees well enough:" and also that "persons who have had the lens removed for cataract still see sufficiently well:" and it appears that the sense of smell may exist without the olfactory nerve. But more evidence of the precise circumstances attending such mutilations and absent organs will be acceptable. Ann Vials generally felt as if her arm were still attached to the stump; and by mesmerizing over the stump, I could make her feel as if the hand closed, or

only two fingers or the thumb. Here is an instance of the delusion of the Muscular sense; but this, of course, the eye corrects, just as touch corrects the delusion of the eye in seeing a stick crooked in water. Why these severed nerves of the arm should induce a sense of the arm being there, and of various positions and motions connected with such an image, is not yet very clear to me: but Ann Vials may truly be said to be haunted by the ghost of her own arm. That the nerves of the stump did once convey impressions to and from a hand, does not clear the act to my mind. Two fingers crossed over a pea give an impression of two peas. The eye corrects the error to the judgment, but does not destroy the sensation, any more than touch prevents the stick from looking crooked in the water, or reason allay the terror that some experience at the sight of a spider, or other object of superstition. I have waked in the night after lying on my arm, and found it wholly dead. I could throw it about like the arm of a doll, it not having a particle of sense in it. I observed that I had no more sense of an arm than if I had been born without it. I took hold of it with my other hand, and it seemed like a dead thing hanging about me, and yet without any sense of its being attached to me, — causing the oddest impression possible, and a very uncomfortable one. So that you may have persons with arms feeling as if they had none, and others without arms feeling as if they had them. When the whole body has lost

sensation, as in the trance, the mind seems to be free; to have an immaterial, independent existence. Those who are dying often necessarily experience this disembodied sense of being. Here it is not the sense, but the want of sensation that deceives. We are told that our senses never deceive us; and that in the case of the stick appearing crooked in the water, or the sun moving, for instance, the impression is true enough, but that we form a wrong judgment from appearances. In the instance of the stick in the water, it is the refracting rays of light that deceive us. Here Nature seems to be undoubtedly at fault: but it is these deviations that are the light of philosophy. Any how, it is clear that appearances do deceive us; whether it be the false appearance of a stick in the water, or the impression from a person dying causing some one at a distance to believe he sees the apparition or ghost of the dying person. A number of individuals may receive the impression of the dying person at the same time, and in different parts of the world, just as we have the impression of the moon in different places at once. But what is seen of the dying person is no more an entity and separate individual, or the individual himself, than the appearance of the moon in the water is a separate and real object or ghost. You may see the dying person, — that is, receive an influence from him; but what you see is not what you believe you see, or in the place where you see it, any more than the moon is another moon in the water, though the

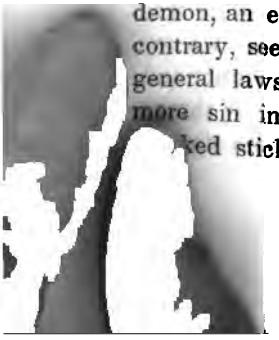
story goes that people once thought so of the moon, and brought a rake to fetch it out. A ghost is no more an objective reality than I am the image of myself in the glass. The dagger which Macbeth saw in the air was as much a ghost as the appearance of Banquo. In our friend Mrs. Crowe's very interesting and ingenious book, "The Night Side of Nature," she sets out with the assumption that Mind is a spiritual entity, separate from the body; and in consequence, a pervading fallacy is introduced into her reasoning, and it becomes but the ghost of reasoning. It is again assumed that in the trance the mind goes out of the body to a distance, and returns with information, as the dove went out from the ark. But such belief is wholly assumption, and mere fancy. There is no more reason why it should do so in the trance than in our ordinary condition of perception. Besides, how can a person be describing what he is seeing at a distance, and be in the distance at the same time? There are cases of two persons in the trance conversing with each other at a distance. Can they both be in each place at the same time? Many persons, from fancying that mesmerism and *clairvoyance* indicate a spiritual existence, or something supernatural, have become converted from scepticism to the belief of a future life. Mr. Townsend relates a case of the kind in the second edition of his work on Mesmerism: but mesmerism *clairvoyance* are as natural as the instinct of ds, and no more wonderful. We must profit

by Bacon's admonitions, and not mix up theology with science. We must not see ourselves reflected, — see the ghosts of ourselves in Nature, and imagine we recognize design, or a human origin of things. We must follow our great master Bacon, and make a stand against the fallacy of natural theology, and that exceedingly weak argument of Paley's about the watch, which only places the difficulty a little farther off, and confounds the idea of creation with design or manufacture. To design is human. Men design by following the laws which constitute nature. From our infinite non-existence in the past, and from sleep and other states of insensibility, we might infer annihilation or change at death, in the same manner as we suppose with regard to insects and other animals: but nothing in nature indicates a future life, unless men will take their desires for evidence. Science must be wholly cleared from theology, or we shall be stopped at the very entrance of the temple by some self-constituted authority, or "pampered menial," and beaten back, and the simplest truths be obscured again for ages.

In the contemplation of high things, too, let us not be ashamed of introducing mean instances, which may give most light. Socrates began his discourse on beauty with a glazed pot, and he was laughed at: and we may be laughed at if we try to understand Man, and begin with a worm, and so show the growth of greater and greater things from less; the more complex from the more simple.

There is no difficulty now in investigating and understanding the nature of all those appearances which are called ghosts or demonology, — remembering always that knowledge is to be sought in the contemplation of things and material laws; that truth is revealed from the analogy of knowledge. But the mind must first be cleared of all fictions, prejudices, superstitions, fears and longings: and this can arise only from a true acquaintance with things. There are some minds so beset with error and conceits that there is no making any breach into them at all, through which to introduce truth for the displacement of error: and such minds, I fear, must remain choked up in their conceits to the end.

You see our subject is so vast, that I can do little more than indicate to you what, in my opinion, is the road we should follow, and the kind of observations required. Ignorance sees Nature in parts, personifies effects, and takes them for causes. It creates horrors and spectres, and then startles at its own creations. Ignorance imagines gods and devils in legions. Knowledge establishes the true relations of things in a whole, and has only one God; and that, incomprehensible and unknown, and cannot admit a Principle of Evil; much less a personal demon, an embodiment of all villany; but, on the contrary, sees good in evil, and the working of general laws for the general good; and sees no more sin in a crooked disposition, than in the ...ked stick in the water, or in a humpback, or a



squint. Ignorance conceives its Will to be free; — a strange arrogance, if it could see it. Knowledge recognizes universal law, and that nothing can be free or by chance: — no, not even God;* but that God is the substance of Law, and origin of all things. Science will not permit us to imagine beyond this; for knowledge is but the perception of phenomena and their relations; and a man can know no more than he has perceived. *Clairvoyance* does not reach beyond phenomena; nor is it in our power to conceive of any thing different from what we know. — When we see what we call a ghost, it must always be a visible or tangible something. I have had a sleeper sitting in an arm-chair, and declaring that she saw her soul go from her, and pass out at the door in the form of a lamb. Now, how the soul could go away, and be in the body, talking to me all the while, I cannot conceive; and yet by such delusions as these are men deceived. It would be hard to believe that Davis, the American seer, did really see those strange creatures he describes as the inhabitants of the different planets: and yet we cannot disprove his assertion, except by other somnambules who contradict him. — A friend in a fever used to see every day a snake crawl up the table, and sip from her lemonade. I

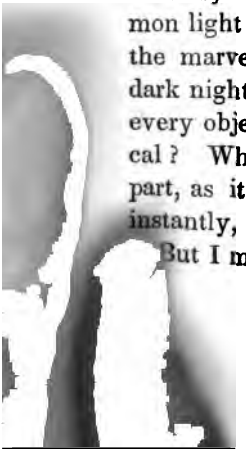
* "This same Mechanic is not only able to make all sorts of utensils, but makes every thing also which springs from the earth; and he makes all sorts of animals, himself as well as others; and besides these things, he makes the earth, the heaven and the gods, and all things in heaven and in Hades under the earth." — *Plato, The Republic*, X.

well remember when a child, seeing a black man sitting beside me on the bed. The impression is as distinct as if it had only occurred yesterday: and even after I had screamed, and the servants were in the room, the figure remained, and gradually slid away. And I once, when attending to mesmerize a very critical case of a young lady in a death-like trance, heard what seemed to be a voice from a part of the room where there was no one, say distinctly, "Go on, — go on." It was at a moment when I hesitated, and thought the patient dead. She recovered, and is now well. — A friend of mine died; and in the evening I was writing to condole with his child, when, looking up, I saw the image of my friend in the air, projected some feet from me; and the impression lasted at least a minute. A lady, who is naturally *clairvoyante*, and familiar with visions and pre-visions, both false and true, tells me, among other remarkable circumstances, that she once saw the vision of an arm-chair in her bedroom; that she went up to it, and walked through it, and put her hand through it; and still it remained. When a ghost appears on horseback, and in armor, we must conclude the horse and armor to have ghosts, as well as men. The servant of a friend of mine, at one time, used frequently to see, as he drove by, a brewer's dray without horses, passing down a particular lane. — My patient in the ecstatic dream believed she was in heaven, and in the presence of God and Christ, and angels. I asked her one day what Christ was

doing: she said he was writing at a desk. These delusions are in opposite directions; either the embodying of an impression, or, on the other hand, the disembodying of principles, or refining matter away to the minimum of perceptible or conceivable existence: or virtues, or principles, or minds, are abstracted and embodied again in ideal form. A young medical man who disbelieved Mesmerism, but was in the habit of taking ether, on one occasion, when under the influence of ether, was thrown by me into a mesmeric sleep, in a few seconds; and he slept soundly for an hour, and answered questions that were put to him, exhibiting pure somnambulism. When under the influence of ether, this young man always declared himself to be an indestructible atom; and said that an atom was a force. He said he was playing at cricket, and that the bat and ball, and the persons playing with him, were all indestructible atoms. The effect of ether on me is the most exquisite tipsiness; — just a complete sense of physical enjoyment; and this dissolving away, till I have no idea but of Mind existence and perfect content; for I seemed, or thought to be, all in all: the "be all and end all" of being. — I had been dining at my club one day, without taking wine, and whilst observing the waiters moving about, amidst the blaze of light, I seemed to lose all dependence on my body; my mind seemed to be in the distance in what I saw — to fill space — and yet I to occupy no space. Drunken people often see double. I can alter the

condition of my eyes in looking at an object, so as to see two objects; or I can attend to the impressions of each eye, and so see two objects in one in the same place. Such is the double nature of our being. Much has been said of the duality of the mind. It is certain that we can and do think with one side of the brain at a time. The organ on one side may be injured, and the mind go on well enough with the one organ, as we do with one eye or one lung. I have, in phreno-mesmerism, wearied out an organ on one side of the brain, and begun the feeling afresh on the opposite organ; just as we rest from one leg upon the other. Double consciousness is another affair. I saw a very complete case of this under Dr. Wilson, in the Middlesex Hospital;—a natural case: but I have had a mesmeric patient, who went into six distinct states of memory and consciousness; and she recognized me afresh, and in a different manner, in each.

But I must not proceed further in this direction. There seems to be a similar difference between ordinary sight and *clairvoyance*, as between common light and electric light. Did you ever remark the marvellous effect of a flash of lightning on a dark night, when, during a momentary impression, every object is seen with a distinctness quite magical? What you would have to pick out, part by part, as it were, in daylight, is presented to you instantly, wholly and clearly, by the electric light.



But I must not forget that there is one sense, if

I may so term it, which we have not yet considered. I mean the faculty or sense of Time, for which, if we term it a sense, there is no external apparatus; and yet it is as clear and real a sense, or relation, or whatever else it may be termed, as any we possess. I think the idea of time may be an exception to the rule, and exist independent of any visual impressions. Space and time seem to be fundamental to all other ideas, as the place and duration of existence. We cannot imagine matter, or motion, or mind, to exist without space and time. We can conceive the absence of all matter and objects; but it seems necessary that time and space must be and exist eternally, though there were a total void: and I think it rather absurd of Kant to suppose that these fundamental matters, space and time, have no existence out of our sensibility. The faculty of Time is situated in the forehead, between Music and Eventuality, the organs to which it principally relates. Time, of course, can have no outward sense towards objects; but may be said rather to have an inward and mysterious working with the whole system. Time has its proportions and harmonies, equally with colors, sounds and forms. Objects and events exist in localities and space, but endure in and through time. Thought, being only an effect or phenomenon, as motion is, has locality, but is no thing or entity in itself, and consequently occupies no space. Bacon thought that all bodies contained a material essence or spirit which, when we came to plants

and animals, was called soul. "The tangible parts of bodies," he says, "are stupid things; and the spirits do in effect all." * I fully agree with Bacon, and do not consider, for instance, the virtue of the magnet to be in the solid parts, nor the instincts of animals, or thought and feelings of Man, to be the doings of the solid brain, but of a spiritual condition or body eliminated from, or induced by, the action of the brain. How otherwise shall we explain the simplest motion? We know that solid things do not absolutely touch. If I throw a stone, therefore, I do not push the solid part, but influence a spiritual condition which carries along the solid thing. But of this on some future occasion.

Thought seems to have a measure or passage in time; but, like light, has no fixedness, and can have none. Light seems to be an induced phenomenon, or motion in a medium or spiritual substance; which, acting on the spirit-body of the brain, evolves its correspondent mind-forms, or what we term sight: and this supposition opens, I think, a great light upon our subject. Events relate to time, but do not evolve the idea. It is by time that we measure events: as clearly so as we measure objects by so much space. How many things in the working of the system occur at certain determinate periods, or relations of time!—the recurrence of affairs of habit, sleep, &c., for

* Natural History, Cent. I. sec. 98.

example. And how remarkable is the sense of time with many somnambulists, who can often tell the exact time that a crisis in their illness, or other event, will occur, and will wake at the precise moment they say they shall! I remember going to see a sleeper wake who had been sleeping three days, and had said she should wake precisely at six o'clock the third evening. Several of us were talking round the bed, paying no particular attention to the time, when she rose up in her bed and opened her eyes, and instantly the church-clock close by struck the hour. I had a patient sleeping whom I was obliged to leave, intending fully to return within an hour, and I bade my servant look into the room and see that the patient remained quiet. Immediately after I had left the house, she rose from her chair, and, walking to the window, and looking after me, she said — "He thinks that he will return in an hour — by seven o'clock: but he will not return till eleven minutes past nine. I shall go to sleep, and get up again to see him return." It happened, to my great annoyance, that I was detained by some persons I accidentally met, and whom I could not see another time; and, on returning, I saw my patient looking out of the window, she having just gone there; and I knocked at the door at the precise time she had named — eleven minutes past nine, — within half a minute by my watch.

There are some mesmerizers who would explain all the wonders of mesmerism by the patients' read-

ing their mesmerizer's thoughts; but I have more generally found the thoughts and predictions of my patients opposed to my impressions. But men have always been apt to generalize from particular instances within the sphere of their observation, rather than wait for exceptions, which are necessary to the discovery of general and true laws. Hence the world is full of parts of truth and systems, as in Medicine, Homœopathy, Allopathy, the Water-cure, &c.: and some mesmerizers imagine that mesmerism is to do every thing, and cure all ills that flesh is heir to. I knew a gentleman, a man of business, who never carried a watch, and could even, when rambling in the country, tell you with great exactness the time. I have impressed on somnambules, when asleep, that, when awake, at a precise moment they shall do or say so and so. This will remain latent in their brain. They had no consciousness of it when they awoke; but at the precise time they have felt impelled to do or say what I had desired them. We can understand the thought lying dormant, and being born to them as a recollection; but that it should occur at the precise time, without the clock striking, or any such sign, is mysterious. But it is much the same with many of us in our ordinary sleep. I have often gone to bed with the impression that I must get up at a particular hour, and have waked at the precise time. Time seems to have a near relation to that second soul, or unconscious sphere of action which we seem to possess, and which appears to

have one side towards action and the working of the system, and another condition in the intuitive sense, or a face towards clear seeing and true knowledge. In the intuitive or unconscious condition, or sphere, or faculty, as we may call it, exists the voice, or oracle, or guardian angel, which sleepers listen to in the trance. But sometimes this attendant spirit becomes a deluding demon, or madness; and hence there may have been good reason for objecting to witchcraft, and the mischievous delusions of false prophets. Consciousness and reason, after all, seem but as an outward sign of an inward principle, which sees as in a glass at once, and through phenomena to laws, without the process of induction: whereas, by consciousness and reasoning we have to use signs, and take up Nature by parts and degrees: and after all, can see but in part and superficially. We cannot see, like the sun, into every corner, but go about like a candle moving from place to place, and shall see clearly only when we have noted our facts, placed them in order, and inferred from them general laws. I have heard men say — "We are men of facts, and do not believe in *clairvoyance.*" I have replied, — "You are not men of facts — or at least not of these facts. You are like machines which spin out only one kind of fabric. You are men of one language and one country: — prisoners with a window to the north, and declare there is no moon."

I am opening my mind to you as it opens to

myself — with the facts and the nature of the inquiry, not with any attempt at precise reasoning or exact order, which must come afterwards, and grow up with years and labor. And if I appear to be asserting any thing dogmatically, you must only consider it as a form of speech — that I am thinking more of my subject than of manners. If I state what is incorrect, time will prune me down, and wiser heads will set me right. But I am extending this letter without seeing any end to it, and seem yet to have said nothing; for it is a subject the matter of which appears to grow upon us faster than we can house it.

I must now tell you how much interested I am in your having once experienced the sense of smell and taste. I suppose you could not recognize any thing unusual at the time that should have caused this; — this marvellous unloosening for an hour, of senses which have been chained up in you all your life. What, I wonder, could have slipped the collar for this once? And how odd that you should have seemed to recognize the smelling in the throat! I wish you could experience it again, and tell us more about it. It would be difficult, perhaps, to prove absolutely that these sensations of yours were the same as we experience, and call Smell and Taste: but you can show that the relations and peculiarities correspond with what we experience; and this, I think, is sufficient. No man can say that the impression he has of blue is precisely what another man has: but he could

show that the sense has the same relations, and place in a scale; and this is all, I think, that is requisite. We can best know such matters by their relations and correspondence. In the case of my blind friend, it has been said that, she never having seen, and I never having been blind, there can be no common ground of comparison between us. To this objection I reply, that the question is of her seeing; and if she has seen, as she asserts, there is the common ground of comparison; and the result of the comparison will show the fact, and whether the ground of evidence does exist or not: and this is the matter at issue. The only difference is, that we do not see the same object at the same time; which is of no consequence. Another objection urged is, that she ought not to use arbitrary terms — such as blue, green, &c.: but say sky-color, and grass-color. But why so? If she sees in her sleep as we see when awake, she is in the same position in regard to terms as ourselves. She would see the color of the sky, and know that it is called blue: and, therefore, would use the terms as we use them. The proof of her *clairvoyance* is, I think, unexceptionable; but I will inform you of any further particulars I may elicit. This is a case in which I should not readily trust another person's caution and questionings: and, therefore, do not expect assent to what is convincing to me. I merely place the fact on record as a suggestive matter, which may help inquiry, and call forth observation in similar instances. With regard to your

sense in the mesmeric sleep, of matter resolving itself into forces, it is not possible, you say, to explain it; and I, of course, cannot comprehend it. So we must pause till some key to the matter is invented, and we hear what others, in a similar, or a higher state, say to it. In the mean time, it is exceedingly interesting to contemplate; only, of course, we must regard the fact by the side of other facts, and consider whether it is not likely to be a delusion of the senses; or rather a delusion of the mind when the senses are at rest, as in the case, we will say, of the gentleman who thought himself an indestructible atom, and that the cricket-bats and balls were all indestructible atoms; or, when etherized myself, I felt all nature dissolved away, leaving only Mind. But I need not suggest such comparisons to you, only that you, as a matter of course, will find it difficult to abstract yourself, and criticise your own case as you would one in which you were only a looker-on. This is a subject of such difficulty and importance that even angels would seek to tread through its imagery with caution. But I am not, I hope, one of those ill discoverers who think there is no land, because there is nothing visible but sea; and, therefore, I rest upon the matter with hope.

You remember Bacon says that "Plato supposed forms were the true objects of knowledge, but lost the real fruit of his opinions by considering of forms as absolutely abstracted from matter, and not confined and determined by matter: and so, turning

his opinions upon theology, wherewith all his natural philosophy is infected." * We know that nature presents to us a system of forces; and Faraday, I believe, conceives matter to be nothing but a system of forces: but I cannot conceive of force as an abstract from matter, or being matter. But the question is, perhaps, beyond all ordinary powers of sense and reasoning. I once conceived of matter as a system of forces: but I now inquire "What is force?" and require an origin or cause of force; and this brings me to where I set out; — to two things; matter, and its forces or properties. — But of course it is absurd for me to be guessing what you may have seen or imagined, when you say it is not possible to convey the notion, from the prison-house, to ears of flesh and blood; from the intuitive chamber, to ideas founded upon common daylight experience.

I have seen my blind friend again, and had a long conversation with her, on the nature of the faculty she believes that she possesses, of seeing in her sleep. She says that she has seen in this way from childhood; that she constantly dreams, and always sees in her dream; and that, whether she has a sense of what is then in existence, or a prevision of what is to happen, or her dream is a mere wandering of the fancy, — in each case she has the sense of sight. She believes it to be the same

* Advancement of Learning, Book II.

sense that we have, because it answers to it in every respect. And to me it appears, that it is only by such correspondence that we can identity her experience as the same with our own. That the faculty of sight is active in the brain, is proved by her being able to distinguish daylight from darkness: in the same way that you, who want the sense of taste, recognize bitter and acid things, but not flavors; and as we are able to do with our eyes closed. The faculties relating to sight are shown in full development in her forehead; and in this she is in marked contrast to her sisters; one of whom, I find, could once, in childhood, see.

In her *clairvoyant* dreams, I do not find that special attention has been paid to note the appearance of any colors she could not have anticipated. Proof exists, at present, only as to the general fact. For instance, the clergyman of the parish had retired for some time from his living, and gone into Devonshire, to live near to his son-in-law; two hundred miles from my blind friend's residence. She dreamed one Sunday morning in her second sleep, that she saw this clergyman preaching in the pulpit of his son-in-law's church; when he suddenly fell down, and some gentlemen came out of their pews, and carried him into the vestry, not knowing for some time if he were dead, or in a fit. She related the dream in the morning, and it made a strong impression on her family. On Tuesday, some friends had letters, giving an account of his clergyman falling in the pulpit, on that Sun-

day after the dream, and being carried out, and their not knowing whether he was dead, or only in a fit. It was a fit, and he recovered. The whole circumstances accorded precisely with the dream. The clergyman had never been subject to fits. We have therefore evidence, clear enough, of this lady's *clairvoyant* power, and also that the faculty of sight exists, from the perception of the distinction between day and night, and the brain being fully developed.

This slight perception of light and dark would enable her to recognize an extension of the same, and variations in the same, and enable her the better to know that what she expressed was indeed sight. She says that the impression she has of a room and of the furniture it contains, by touching round here and there, and by putting the bits of feeling together, is very different from the complete sense of the whole perceived at once throughout, with the distinctions of form and color in all their variety, as described by us: and that the colors are quite distinct from mere space or surface, and from the sense of roughness and smoothness. — By the way, the fact, that we can cause the sense of color, by scratching on the surface, may be a reason why some blind persons, as it is said, can discover colors by the feel of the surface; each color probably indicating a special character of surface. Thus, from an exquisite sense of touch, the sense of color may be evolved, or at least, the distinctions recognized. A person may have a knowledge of differences,

and what those differences indicate, without seeing: so that it seems to me that *clairvoyance*, and particularly *prévoyance*, would be no proof of sight; but only of a knowledge of a fact, present or to come, and of a sense of distinctions. Still the seeing would have to be made out by analysis, and in the way in which I have analyzed the matter with my friend, in regarding colors, in relation to colors, in relation to sounds and other sensations, in relation to space and surface, and by the impression on the feelings.

This lady says, that some combinations of colors are very disagreeable to her, though agreeable to others, and she chooses her own dresses accordingly. I will set her, however, to make more careful observations on her dreams and visions. — Such cases cause us to reflect on the nature of the different spheres of sight, and of the different characters of light, and conditions of sight. The blue sky that I see with my eyes open, and the sense of the blue that I have when I close my eyes, are very different, and yet the same. The *clairvoyant* sight seems again distinct. I have occasionally, for a very short time, — a minute perhaps, — had a clear and intense sight of objects before me, when the individuality and the parts seemed one: and I have had a similar sense in a morning dream, and afterwards painted the view I have seen, without having any difficulty in remembering a single tint or form. It was that clear and complete sight experienced under a flash of lightning.

If my friend sees at all, whether in sleep or awake, with her eyes or without them, she would soon learn the name of colors, as well as most of us can name them; which is very imperfectly. I do not see that there would be any difficulty in that. — This case is interesting, if only to make us reflect on the nature of such an inquiry, — the nature of seeing, and of the different kinds of light and sight, and the relation which sight bears to impressions from the other senses, and to the feelings; — all bearing in Cosmical inquiry.

XV.

RAISING QUESTIONS.

H. M. TO H. G. A.

THERE is so much in your last letter, that it has been longer than usual under my hand.

Thank you for your detail of facts and evidence as to the blind lady's case. I should still like more, if you can obtain them; for I can conceive of nothing more momentous.

As for the resolution of Matter into forces, it does not, to my mind, convey any notion of immaterial existence. I observe you use the word spirit, and spiritual forces, in regard to the virtues of the magnet, and the mutual operation of billiard balls.

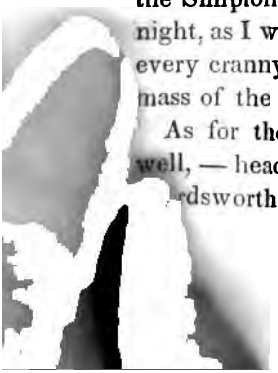
I do not object to the word, understanding as I do, that by "spiritual" you do not mean "immaterial:" but I should not have ventured to use the word to you. I suppose the German term, "Nerve-spirit" is of the same class. I wish we had a term; as people in general mean by "spiritual" that which is not matter, and which is in antagonism with it. I do not know what term we have but "force." — Here we find ourselves in the dim regions where Berkeley and Kant, and so many more, have sat down and tried to make out what they saw, with such varying results. When Bacon says that "the tangible parts of bodies are stupid things, and the spirits do, in effect, all;" and when you agree with him, and speak of "a spiritual condition or body eliminated from, or induced by, the action of the brain;" and when again, we find such nice distinctions necessary, but so difficult to make, between impressions of objective but invisible existences, like space and time, and such as receive reality only by their junction with the human sense, as light and sound (to become sight and hearing), — we can have great sympathy with Berkeley in his conviction, that the human consciousness is all; and with Kant, in his doctrine, that space and time are not objective realities, but conditions of human ideas: and with the common world in the ordinary notion of a soul, capable of existence, independently of the body. Without agreeing with any of them, we see how we approach near enough to understand well how they came by their view of these things.

I suppose Berkeley would disallow your division of our perceptions, saying that light and sound differ from what are considered more unquestionably objective realities, — as a tree or a leaden weight, — only by their appealing to one sense instead of to several, while he denies the instrumentality of any and all of our senses and perceptive powers of every kind. I agree with you as to the distinction, in regard to animal sight and hearing; but I should like to know what you consider light to be, when (animal life being, or supposed to be, absent) it affects the growth of plants; and what you take sound to be, when, in an uninhabited place, it keeps the air from stagnating. Is it by forces that light and sound thus operate? and do they remain the same forces, or originate new ones, when they impinge on the eye and ear, or the corresponding organs of the brain? — And, do you conclude upon an objective reality, in an always equal degree, as to certainty, when you find a corresponding organ in the brain? And, if so, where would you draw the line of classification between the agents (whatever they may be) that appeal to the organs of sight and hearing singly, and those that address themselves at once to the muscular sense, the sense of form, of weight, and of sight; as a leaden weight?

I should think there are cases in plenty to show that you are right as to the interior sense of the passage of time. Most of us can wake at any hour we please to impress ourselves with; and I

suppose most persons can tell pretty nearly what time it is, day or night, if they trust to their instinct. I once could, within five minutes, and can now, when I do not stop to think. But people may say that this is practice with most of us. What do they make of the well-known fact of the idiot boy who had got a habit of imitating the striking of the church clock, and who continued the practice, absolutely unerringly, when removed to a home where there was no clock or watch within hearing or reach? He would do it when left alone, without being spoken to for hours together. This story is related (secondarily) in "Percival's Instructions:" and a prodigious puzzle it was to me in my childhood.

While we are about this matter of the senses, do you think the lightning flash reveals more than the daylight glance? I dare say you are right; but I am not quite sure. I fancy the sudden presentiment may be the thing. I fancy that crossing a ridge, and instantly seeing a wide champaign below, is much like it. I doubt whether my perception of the view from the Mountain House (on the Hudson), and of Domo D'Ossola in descending the Simplon, was not as vivid as when, the other night, as I was in the porch, the lightning disclosed every cranny of the mountains, and every distinct mass of the trees, and then left all blank.



As for the one occasion of smelling, I was not well, — headachy, and, I suppose, nervous. In dsworth's case (*vide* "Southey's Life," i. 63),

there seems to have been no peculiar antecedent state.

Let me tell you a curious thing which happened twice to me — the being unable, by any effort, to see a conspicuous object, directly before my eyes: I suppose, because I must have had a wrong notion of what I was to see. When I was near seven years old, I was taken to Tynemouth, in a passion of delight, because I was to see the sea. Aunt Margaret took me, and an older and a younger one, to the haven. There, when standing on the bank, we were expected to exclaim about the sea, which flowed in up to the foot of the bank, directly before our eyes. The other two children were delighted; but I could not see it. When questioned, I was obliged to say so; and I said it with shame and reluctance. I well remember the misery. I believe it was thought affectation, like my indifference to scents. We were led down the bank, which was steep, and difficult for children. Not till the gentle waves were at my very toes did I see the sea at all; and then it gave me a start, and a painful feeling of being a sort of idiot not to have seen it before. The revelation, at last, was very like that by a lightning flash. It may be mentioned that my impression of my only previous sight of the sea was of something quite different. I was then under three years old, — not strong on my feet, — and my father led me along the old Yarmouth jetty, which was full of holes, through which I saw the swaying waters below, and was frightened,

— as I well remember. I may have been occupied with this idea on the second occasion. The other anecdote is yet more odd. When the great comet of 1811 appeared, I was nine years old. Night after night that autumn, the whole family went up to the long range of windows in my father's warehouse to see the comet. I was obliged to go with them; but I never once saw it! My heart used to swell with disappointment and mortification. No effort was wanting on my part; and parents, brothers and sisters used to point and say, — "Why, there! — why, it is as large as a saucer! You might as well say you cannot see the moon." I could not help it. I never saw it; and I have not got over it yet. The only thing I can suppose is, that I must have been looking for something wholly different; and that no straining of the eyes avails if the mind is occupied with another image.

Yes, — I fainted one day from having, in a freak, put a musical snuff-box on my head. The delicious precision of the music, and the revival of the old clearness, after the muffled piece of confusion that instrumental music had been to me for some years, overcame me in a second of time. I am sure I heard that performance quite as well as any body could through the ear: and I have since clapped on my head every musical snuff-box I could lay hands on. You may like to know the following: — When I had become just deaf enough to have difficulty in catching the pitch of a piece of music, in the concert-room we attended, which had

benches, with a long, wooden rail to lean against, I could always get right by pressing my shoulder-blades against that rail: only, the pitch was always a third below. Finding this with music which I was familiar with, I soon got to allow for it always, and so did very well for the time. As the deafness increased, I found all bass sounds lose their smoothness, and come in pulses, beating upon the ear, and vibrating through the pit of the stomach, while, as yet, higher sounds were as formerly. And even now, treble voices are smooth, as far as I hear them, while confused; and the bass are lost. Before I quite left off playing the piano, I always took the treble part in duets, leaving it to my partner to fit the bass to it, without any cognizance of mine.

Now, do tell me, if it is a thing which can be explained, or on which it is possible to have any clear ideas, — *how* a dying person, or the event of his dying, acts upon persons at a distance. I am in no way disposed to question the fact of such "apparitions," or ghosts, as they are called; but, while I am obliged to reject the customary notions, theological and philosophical, about these phenomena, I am unprepared with any solution. I am thankful to say that I need not trouble you to answer, in me, the popular notions about a spiritual state; but you must address yourself to an entire ignorance of the conditions under which such perceptions occur. I could tell you curious stories of such apparitions: — but so can every body; and really we want no more evidence, — at least, you and I do not,

Tell me, too, how you conceive that our consciousness of continued identity is accounted for, while our whole frame (every organ of the brain among the rest), is incessantly undergoing waste and renewal. And is not the grand feature of Death the cessation of this consciousness of continued identity? And is not this enough to sever the change of Death widely from every other change of structure we undergo, so that they cannot be likened but by a kind of violence? As to the fallacy of all arguments for a conscious existence after death, I agree with you entirely. I think that, not only is the desire taken for evidence, but the desire itself is a factitious thing; that many (and this I know) do not desire it at all; and that others never would, if it were not forced upon them from the hour of the awakening of the understanding. The argument of Compensation, by means of a future life, appears to me as puerile and unphilosophical as the Design argument in regard to "Creation," or the existence of things. Pray tell me, too, whether, in this last letter, you do not, in speaking of God, use merely another name for law? We know nothing beyond law, do we? And when you speak of God as the origin of all things, what is it that you mean? Do we know any thing of origin? — that it is possible? Is it conceivable to you that there was ever Nothing? — and that Something came of it? I know how we get out of our depth in speaking of these things; but I should like to be aware *where, exactly, you think our knowledge stops.*

XVI.

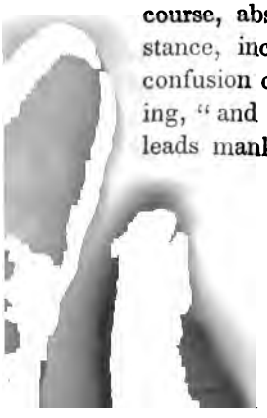
BACON ON MATTER AND CAUSATION. — INFERENCES AND DREAMS. — ASSOCIATION OF IDEAS.

H. G. A. TO H. M.

I WILL endeavor to reply to this last letter of yours, and the difficult questions you propose, as well as my poor thoughts will aid me. With regard to the blind lady's case, I will try to obtain for you more precise details. The matter has opened an interesting train of reflections as to the possibility of such an experience, and to the nature of sight. It will lead us to consider the distinction between the first, — the immediate sense impression of objects, and the after or image impression, — the paintings or shadowed drawings in the mind when the sense is closed. We shall consider, likewise, the circumstances under which these images are projected, as it were, to appear like the real or first impressions, and shall also have to consider whether there be any distinction between our ordinary sense impressions and the *clairvoyant* impressions, and the different characters of those *clairvoyant* recognitions; and, again, between the mere dream and true vision, and what is the distinction between the sense the *clairvoyant* has, in its clearest state, of appearances existing at the time, and its picture of what has not yet occurred (that which we term

pre-vision), and whether these *clairvoyant* recognitions, in either case, occur independently of the perceptive organs which we consider necessary to ordinary sight. I have not advanced far enough at present to give you these requisite definitions; but it is something attained, perhaps, to be aware of the distinctions fundamental to the inquiry.

The foresight of what has not yet occurred is at present a matter quite incomprehensible: and many will say impossible, who are in the habit of measuring truth by their own ignorance and limited reason. We who know * that such things are, are content to receive the fact as it is, and wait for the explanation. I fully agree with you as to the necessity of defining terms. I have remarked upon this, I think, in a former letter. In my opinion, there are too many terms signifying the same thing, and too many distinct conditions included under one term. For instance, force, virtue, power, principle, property, spirit, soul, &c., are used to signify the active character or quality of a body; and yet what distinct matters are included under the term virtue, spirit, soul, force! The difficulty of the matter has caused a confusion of terms; and some of these are, of course, absurd enough: such as immaterial substance, incorporeal body, or free will: and the confusion of terms again enslaves the understanding, "and throws every thing into confusion, and leads mankind into vain and innumerable contro-



* Appendix I.

versies and fallacies." I see no method of clearing the way but by closer observation of nature, and by more precise definitions of all true characteristics and distinctions. Bacon says, the motions corporeal in bodies, — that is, the effects which pass between the spirit and the tangible parts, — are not handled, "but they are put off by the names of virtues, and natures, and actions, and passions, and such other logical words." Bacon speaks very positively with regard to a spiritual nature in things, and says, "It is not a question of words, but infinitely material in nature." "For spirits are nothing else but a natural body, rarefied to a proportion, and included in the tangible parts of bodies, as in an integument."* It is in this sense that I have used the term Spirit, to express a rare and subtle condition of matter. Hobbes uses the term Spirit as the contrary distinction to phantasm.

I have just seen the translation of Reichenbach's "Physico-physiological Researches, in relation to Vital Force," with notes by Dr. Ashburner. Reichenbach speaks of the immaterial essence of light, for which speech Dr. Ashburner calls him to account, and declares for matter only. "It is the atheist," he says, "who believes in nothing." I confess that I can as little understand Dr. A.'s meaning about the atheist believing in nothing as Baron Reichenbach's, about an immaterial essence of light. But Reichenbach is a clear-headed man,

* Natural History, Cent. I. sec. 98.

and I dare say he is right enough in his meaning; but, as you ask about the nature of Light, I wish that his term had been defined.

Let us consider what Bacon thought about Matter, which he declares "the Cause of causes,* itself without a cause." He says,† — "For a true philosopher will dissect, not sever nature, (for they who will not dissect must pull her asunder,) and the prime matter is to be laid down, joined with the primitive form, as also with the first principle of motion, as it is found. For the abstraction of motion has also given rise to innumerable devices‡ concerning spirits, — life and the like, — as if there were not laid a sufficient ground for them through Matter and Form, but they depended on their own peculiar elements. But these three are not to be separated, but only distinguished; and matter is to be treated (whatever it be) in regard of its adornment, appendages, and form, as that all kind of influence, essence, action, and natural motion may appear to be its emanation and consequence. Nor need we fear that, from this, inquiry should stagnate, or that variety which we perceive, should become incapable of explanation." How earnestly Bacon admonishes us at every turn to cast away all theological notions whatsoever from our philosophical inquiries! — that it must be constantly in the philosopher's thoughts that Cupid (who represents the elements of things, or fundamental nature)

* Appendix K. † De Cupidine. ‡ Appendix L.

is without parents, lest, perchance, his understanding turn aside to empty questions; because, in universal perceptions of this kind, the human mind becomes diffusive, and departs from the right use of itself, and of its objects; and, whilst it tends towards things more distant, falls back upon those that are nearer to final causes and its own nature, which is but a result in universal nature. Again, he says,* — "Almost all the ancients — Empedocles, Anaxagoras, Anaximenes, Heraclitus, Democritus, — though disagreeing in other respects upon the prime matter, joined in this, — that they held an active matter with a form, both arranging its own form, and having within itself the principle of motion. Nor can any one think otherwise, without leaving experience altogether. All these, then, submitted their minds to nature." And again, he says, — "But whilst the dicta of Aristotle and Plato are celebrated with applause and professional ostentation in the schools, the philosophy of Democritus was in great repute among the wiser sort, and those who more closely gave themselves to the depth and silence of contemplation."

I have quoted these passages, because I think the best way towards mending our terms, or agreeing on their signification, is to endeavor to clear our understandings from the beginning; and this trinity in unity described by Bacon, seems to be a sound commencement; Matter, Form, and the

* De Cupidine.

principle of Motion, or the power or mind of Nature, if such expressions be preferred, as more nearly indicating the varied form and laws of Nature. As a man sees himself reflected in a stream, so Nature, it may be said, sees herself in man's mind; but only as a form of her external condition: and by glimpses theologians have supposed man to be superior and independent of the laws of Nature; whereas, he is but the minister and interpreter of the law, to which he is himself subject. He is but a part and parcel of the whole. A flint stone might become a mirror, in which a philosopher could see himself: but under new circumstances, this Proteus matter, — this very mirror which had been a flint stone, — might dissolve away, and reform into a philosopher: and, in place of the reflecting mirror, we should have, gradually evolved from the principle of motion, the phenomena of mind. All is change, — change eternal. Motion is fundamental to the constitution of nature; and the forms of Matter, and the condition of Mind (which is one form of the properties of matter), are all passing phenomena, fleeting and varying as the wind; equally determined by law, — bound down by the adamantine chain of Necessity. For it is the extremest folly to imagine absolute freedom, or that there is any inertness in matter, or chance-work in nature, or in mind, which is the reflection or interaction of nature. There is nothing stable but what we conceive to be fundamental to all these forms and changes, but which is beyond

sense impressions. We assume a something and a principle, because the form of mind requires it, as a thing essential, though unknown: and it is this which I wrongly enough perhaps termed God. It is that* which the ancients so prettily fabled as Cupid; meaning the cause of things, itself without a cause. "It is *sui generis*, and admits of no definition drawn from the perception, and is to be taken just as it is found, and not to be judged of from any preconceived idea." But men are not satisfied with a mystery, or content to suspend their judgment. In the conceit of their ignorance, they anticipate nature, and prejudge every novelty. Even the noblest work of Man, the *Novum Organon*, was ridiculed when it appeared, notwithstanding the great repute and high position of the Chancellor. — Hence the history of Man is a history* of the persecutions of the world's benefactors — of the bravest, the best, and the wisest men. All this is caused by absurd creeds, and the ignorant clamor of the interested, crying, "Great is Diana of the Ephesians." Not being content to suppose eternal and inherent principles and laws of nature, evolving the sequence of events, and all the changes and forms of being, they jump the mystery, and suppose a beginning in time, and a creation; — a something from nothing, and confounding sequence with cause, and manufacture with creation, suppose a Creator after the likeness of Man: in fact, ease themselves of a difficulty, by imagin-

* Appendix M.

ing an impossibility. Surely, if the inhabitants of some of the myriad worlds, which shine in space around us, could look upon us (and perhaps some of them can), they must wonder at our follies and presumption. It is thought fine logic, to suppose an extra cause of fundamental nature; and yet the same logic does not lead men to the necessity of a cause for this cause, *ad infinitum*. If you imagine an extra cause, and stop there, what are you but an Atheist at one remove? And believing that three separate persons are one person, and that the Son is the Father, and that the cause reconciled itself to itself, to the doings of that child it had itself created and found perfect, by destroying itself certainly does not make the logic more perfect, or deter a reasonable man from considering the origin of opinions, and of the various theologies and creeds by which men are possessed. It is very certain that theologians* have failed to reform the world. All our hopes now lie in a true understanding and philosophy of man's nature, when all theologies will be found to be the offspring principally of abnormal conditions or disease. Men once believed, and I suppose savages do now believe, that the earth was a flat plane, and the sun and stars were lights placed on the blue arch of heaven, for this world's use: but would they have supposed the God of the universe to be taking so much special care of Man as of a few chosen people, on this little speck of earth, if they had conceived the

* Appendix N.

infinite, and the infinite worlds in space, or known that Herschel would see light from worlds by his glass, that had taken two millions of years in reaching this earth? Let us write down million upon million, and for a whole long lifetime, and strain imagination to its extremest limit, and we shall not have nibbled away a noticeable bit out of the immeasurable, inconceivable, infinite. The sense of our arrogance might well cause us to fall down in shame before the contemplation of the solemn, I had almost said the terrible infinite. Our theologies partake necessarily of the presumption and contracted notions of a village gossip, or of the man who thinks himself specially elected for grace and heaven. Philosophy finds no God in nature; no personal being or creator, nor sees the want of any: nor has a God revealed himself miraculously; for the idea is in the mind of most savage nations, because under like influences like effects will occur. The human mind, wherever placed under similar circumstances of ignorance, will form similar conceptions, and have similar longings and superstitions. But that men in a thousand opposing creeds * should be enslaved by the dreams of the savage, and the ignorant superstitions of an infant state of the world, only shows that the philosophy of Man is but just beginning, and has yet to struggle through an entangled jungle of prejudices into life. Men still worship idols of one shape or another; an insect, or bird, or quadruped,

* Appendix O.

or an ideal image of themselves, a fiend, a warrior, or a thing to be flattered and persuaded, like a poor, vain, human creature. "It were better," says Bacon, "to have no opinion of God at all, than such an opinion as is unworthy of him; for the one is unbelief, the other is contumely: and certainly superstition is the reproach of the deity. Plutarch saith well to that purpose: 'Surely I had rather a great deal men should say there was no such man at all as Plutarch, than that they should say that there was one Plutarch that would eat his children as soon as they were born.'"* Now, to create a being to fall, and all other generations to suffer as on account of this error (for sin it could not be), and to predestine what need not have been created, to eternal damnation, does not show very unlike a creature that would devour its own children as soon as they were born. If men will make a fable for that which is beyond our comprehension, let the poetry be sublime, and worthy of the subject. Let the God be an ideal abstract of all that is unimpassioned, noble, and elevating: and above all, let it be a mystery; not a thing carved in stone, or shaped out in blood and bone; a thing of human passions and imperfections, fabricating that which it afterwards finds imperfect, and repenting of having made it. But why go on with all the details of this amazing belief: a belief, not of a few miserable savages, but the belief of civilized Europe? Then, be deferential and humble as you



* Essays, XVII., of Superstition.

may, what can you conclude, but, with Bacon, that a universal insanity reigns in men's minds? It is quite impossible that a mind like Bacon's, having any belief in, or respect for, the Christian dogmas, could have placed the matter in such a ridiculous light as he has done in the Christian Paradoxes; and it seems equally vain to argue that they were not his writings, or done only as an exercise of his wit. The Confession of Faith seems only a showing of what the faith of a believing Christian should be, and in the least objectionable form. There is yet very little daylight of intelligence in the world. Man's mind is twisted into a thousand fantastic shapes, and paralyzed by system and authority. Bacon well knew that he must first try with a new broom to sweep a passage way for reason to act in. He also knew the peril he was in, and was forced to degrade himself and the truth beneath a mask. What has been thought to be divine, and prophecy, and miracle,* and inspiration, &c., and upon which phenomena all the various prominent faiths have been founded, we now know to be doings of Nature, — effects of abnormal conditions

* "How many things do we call miracle and contrary to Nature! This is done by every nation, and by every man, according to the proportion of his ignorance. How many occult properties and quintescences do we daily discover! For, for us to go 'according to nature' is no more but to go 'according to our understanding,' as far as that is able to follow, and as far as we are able to see into it. All beyond that is, forsooth, monstrous and irregular." — *Montaigne.*

"Miracles appear to be so, according to our ignorance of nature, and not according to the essence of matter." — *Ibid.*

of Man. Prophecy, *clairvoyance*, healing by touch,* visions, dreams, revelations, and the delusion of believing themselves divinely inspired, are now known to be simple matters in nature, which may be induced at will, and experimented upon at our firesides, here in London, — (climate and other circumstances permitting) — as well as in the "holy land." In nature there can be no favoritism or predestination, though all things be fated as being according to law; law which rules impartially, though individuals suffer cruel extremities from necessity; all evil, however, having some tendency towards universal good, as manure and decaying matter are the substance essential to regeneration and the golden harvest. But men fancy that they recognize the doings of a mind like their own in nature, instead of perceiving that they are of a form cast from nature, and a response to the surface, or phenomenal form of things without. Thus deluding themselves, they wander after final causes, and by an inverted reason see their own image in nature, and imagine design and a designer, — creation and a creator; as if the laws of matter were not fundamental, and sufficient in themselves, and design were not human, and simply an imitation; or, as Bacon designates it, "a memory with an application." To call nature's doings, and the fitness and form of things, design, is absurd. Man designs; Nature is. But how little the real spirit of Bacon's philosophy, and the aim of his labors,

* Appendix P.

have yet influenced the world! Men are still writing Christian Geology, and Christian Phrenology; and, I suppose, Mohammedan Phrenology, and Jewish Phrenology: and the facts of Mesmerism are perverted to suit every one's theological opinions; — to support a belief in ghosts, or in miracles, or in the Thirty-nine Articles. Some are running after new revelations; others denouncing all new revelations, and clinging to old ones. The Rev. G. Sanby's interesting work on "Mesmerism and its Opponents," in which he endeavors to support miracles* by limiting Christ's natural powers and insight, is an instance. Men do not perceive that the arguments which tell against a new revelation tell with equal force against the old.

Sir Charles Bell set about proving a design and a designer from the hand. Another gentleman would infer a God from an organ in the brain. Lord Brougham holds out Paley, and the logic of the watch story, and declares that mind does not age with the body, but is independent of it; all which is most fanciful, and wholly fallacious. You remember that De Maistre, a Roman Catholic writer of celebrity, has attacked Bacon's philosophy in two goodly volumes, as Materialism and Atheism. Bacon has told us how necessary it was to use disguise; and I fear this masking was carried further than was absolutely necessary for his own security, and for engaging a hearing† for his own philosophy. Be this as it may, De Maistre has torn

* Appendix Q. † Appendix R.

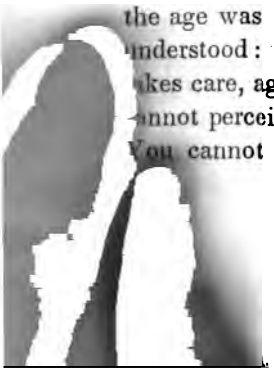
off the disguise: and while endeavoring to injure Bacon's reputation, and do a service to the Church, has done the best thing he could have done for philosophy: and only what, doubtless, Bacon anticipated when he said that he had held up a light in the obscurity of philosophy which would be seen centuries after he was dead. He laments that he cannot "dismiss all art and circumstance, and exhibit the matter naked to us, that we might be enabled to use our judgment. Thinkest thou," he says, "that when all the accesses and motions of all minds are besieged and obstructed by the obscurest Idols, deeply rooted and branded in, the sincere and polished areas present themselves in the true and native rays of things: but as the delirium of phrenetics is subdued by art and ingenuity, but by force and contention raised to fury: so, in this universal insanity, we must use moderation." When a boy at college, he was impressed with what he repeats when he was Chancellor. "In the Universities," he says, "they learn nothing but to believe: first, to believe that others know that which they know not: and after, themselves know that which they know not. They are like a becalmed ship: they never move but by the wind of other men's breath, and have no oars of their own to steer withal." He speaks of the fictions of those who have not feared to deduce and confirm the truth of the Christian religion by the principle and authority of philosophers. "In short," he says, "you may find all access to any species of phi-

losophy, however pure, intercepted by the ignorance of divines."

Bacon seems to mean by atheism, the mere dwelling on "second causes scattered," — the sequence of events, as if brought about by a chance; and hardly believes in the existence of atheism; — that any one can be so stupid as not to perceive the necessity of a fundamental matter, form, and law; and says therefore that even that school which is most accused of atheism doth most demonstrate religion: that is, the school of Leucippus, Democritus, and Epicurus. The forms and laws of nature Bacon sometimes calls the Mind of Nature; and thus he is excused for exclaiming, what would otherwise from him be ridiculous and inconsistent, that he "had rather believe all the fables in the Legend, and the Talmud, and the Alcoran, than that this universal frame is without a mind," or an affair of chance; which would be nonsense, and clearly impossible. But in his Essay on Superstition, he speaks approvingly of atheism, meaning the not believing the dogmas of the Church, as leaving a man to sense, to philosophy, to natural piety, to laws, to reputation. "And we see," he says, "the times inclined to atheism (as the time of Augustus Cæsar) were civil times; but superstition hath been the confusion of many states, and bringeth in a new *primum mobile* that ravisheth all the spheres of government. The master of superstition is the people; and in all superstition, wise men follow fools; and arguments are fitted to

practice in a reversed order." If this be true in these times, it would seem that all statesmen should encourage atheism, as a means of preserving order and good conduct.

Bacon protests against retributive judgments, and against any interference with the laws of nature, which he considers fixed and eternal; and the properties of matter to be "self-sustained," "as an adamantine necessity of nature," and the primitive matter to be "the cause of causes, itself without a cause." "For there is a certain limit of causes in nature; and it would argue levity and inexperience in a philosopher to require or imagine a cause for the last and positive power and law of nature, as much as it would not to demand a cause in those that are subordinate." * What can be inferred from this but that to require a cause beyond nature, and out of nature (which includes both second causes and the first cause; but, in fact, there is but one, the first cause; and what is called second cause is but the form and sequence), argues levity and inexperience? but, nevertheless, he added to the cause and causes ("God excepted"). That was to save his position and chancellorship; and he left the inconsistency to be unravelled in future time, when the age was ripe for the whole truth being clearly understood: in which times we now live. Bacon takes care, again and again, to show you that you cannot perceive in nature any thing but phenomena. You cannot perceive the workman in the work;



* De Cupidine.

that is, the cause in the phenomena — the fundamental cause of causes — which is beyond the power of the senses and the understanding. Speaking of the idols of the mind, he declares against the idea of the first cause being of human shape, or of human mind, and says, "For if that great workmaster had been of a human disposition," &c. In another place, he considers the idea (maintained by the author of "The Vestiges") of the formation of matter on mind, or "archetypal ideas," as one of the phantasms, or spectral illusions floating about, and playing on the surface of things. It is fine to hear the thunder of Bacon's eloquence against the arrogance and ignorance and persecuting spirit of the theologians. Only a few years before, the aged Galileo was taken before the Inquisition, and forced to "declare truth to be what the Church pleased, not what was declared in nature, but what was in 'the Holy Scriptures.'" And think you those times are passed, and men are now pure and tolerant? Have we no living instances? Was not Lawrence forced to retract his opinion? And are not those noblest experiments of the age by Mr. Crosse* regarded with religious horror, and ridiculed by many? Bacon denounces all introduction of abstracted forms, fantastical essences, final causes, or first causes, to interfere with the simple laws of nature, and of matter as we find it. For when "Folly is worshipped," he says, "it is, as it were, a plague-spot upon the understanding." "Yet some

* Appendix S.

moderns* have indulged this folly with consummate inconsiderateness, that they have endeavored to build a system of natural philosophy on the first chapter of Genesis, the Book of Job, and other parts of Scripture, seeking thus the dead among the living." "The absurdities of some among them having proceeded so far, as to seek to derive the sciences from spirits and genii." It is only lately that we have ceased to believe that mad people are possessed by demons; and many now believe, as our friend Mrs. Crowe, that the world is full of ghosts; and others dislike Mesmerism and Phrenology on account of religion, and consider that the cures by Mesmerism are the casting out of devils by the prince of devils. Time, Space and Causation are ultimate facts recognized by appropriate faculties of mind. Creation is a distinct idea from Causation, or the doings of innate and existent powers and tendencies of matter; and, like immateriality of being, is a fancy wholly unrealizable; an absurdity arising out of the confusion of ideas from false analogy. A man models or reconstructs what is, but does not create; his mind and will are wholly a result and consequent, and not a primitive determining cause. His mind recognizes the phenomenal world, as that world is to it; but of the fundamental, the infinite, the universal, it knows nothing: and to imagine a cause like itself is to confound effects with causes, and to lose the little sense which we have, and

* Novum Organum, Lib. I. Aph. 65.

to shut our eyes to that truth and nature which we might have, and that good which is the fruit of the tree of knowledge.

No one can read the Novum Organum, the Advancement of Learning, the Fable of Cupid, or the Christian Paradoxes, without perceiving clearly the true nature of Bacon's mind, and that his religious professions were mere shams to shield himself from his enemies. Bacon seems to have been ever practising the craft of his wit; and he declared that it was impossible to speak the truth openly: that he must nurse men's minds, and prepare them for the light, and graft upon the least objectionable of the old stock to obtain a hearing. He acted like a wary politician and a lawyer: and I think, even for the dangerous and troubled times in which he lived, he sometimes overacted. He admonished you to be wise as a serpent; and this he was himself; but not always, I fear, as harmless as a dove. However, it may be difficult to weigh the conduct and motives justly of such an original and vast intellect as Bacon's. But I need not wonder at Bacon when I know men in these present times facing the world with a greater hypocrisy even than Bacon used. It is time all this masquerading was at an end; and when it is good for others to hear, let us never think whether or not it is wise for us to speak. Men who think of expediency in questions of fact will soon learn to be false and dishonest, and find for their conscience plausible pretexts for their misdemeanors. Better

to be plain spoken (tempering courage with modesty): and if the tide should sink us, what matter? Better so, than to live in corruption. Or, as the Scripture has it in a selfish view, what will it profit you to gain the whole world, and lose your own soul? Or, in other words, for what shall you exchange your love of truth, your sense of right, your impulse towards candor, and the desire of progress and universal happiness, and the fruits of knowledge, — of knowledge generally, — but the knowledge of Man, and the natural history of his mind, in particular? Shall you know of water in the desert, and be silent, and see men perish of thirst?

It is certainly a startling fact to those who believe the resurrection of the body, that the substance of the body should be constantly renewed; and, at first, this fact seems to favor the idea of a soul, or spirit, or mind, entirely separate from, and independent of the body. But, on reconsideration, we find, as I have explained in my last, that the matter is simple enough, and has its place in the general order and doings of Nature. New matter becomes gradually substituted for the old, and takes its form: is immediately leavened or possessed with the nature of its position, and the condition of the being of whom it composes a part. Each part of the frame gives its condition to the new comer: and thus, not only the brain, but the lungs, stomach, liver, hair, bones, &c., continue the individ-

uality and peculiarities of the person, even to the latent qualities which may pass through one generation, and come out into relief in a third or fourth. In the same way, the memory of the past and personality are continued, and incessantly transferred from matter to matter, and from body to body, and we retain the sense of personality, and the memory or sense of the sequence of our lives. One thing we must not forget; that whether we be considered the result of the body, or of the body used as an instrument by a mind-being, we must be equally the result of inherent law — be the result or sequence of nature: for, if the mind be a separate and independent being, it must, to be at all, have a nature or law of some kind: and, if minds were all equal, they would all act precisely alike, under like circumstances. If not originally or fundamentally alike, then the result must be in precise accordance with that difference. I mean, that it is not the fact of our being the result of matter, or the working from and in matter, that causes the non-responsibility; but the necessity that whatever is, must have a nature of some kind, and must be subject to, and be its own form and law. I mention this simply because many persons believe that it is only the material and Baconian philosophy which subjects Man to the rule of necessity: and that when free from substance, he would be free in nature: which is an absurdity, and a mere delusion of the fancy.

I quite agree with what you say about the idea

of another life. The desire of a future existence is merely a pampered habit of mind, founded upon the instinct of preservation. It is a longing; and those who have it, are like drinkers or children. The drunkard looks upon the water drinker as a lower species of animal, and cannot understand his doing without the desire of drinking. The child fancies its own little enjoyment and promised holiday to be all in all, and the whole world of pleasure. The young man is invited to No. 7, in the Terrace, sees a young lady, goes home and dreams of her, and thinks that on the possession of that one woman depends his happiness; and he pities all besides for their ill luck or indifference. But, had he gone to No. 8, instead of No. 7, he might have seen another young lady of whom he would have thought in precisely the same manner. "Such tricks hath strong imagination," and such are the reasonings of desire. — It is, of course, in the same way with a religious faith, which is acquired from parents, or from the community in which we live. The Jew remains a Jew, the Christian a Christian, and the Mohammedan a Mohammedan. Each remains fixed and immovable, as if they were casts from a mould, — which indeed they are. Each is ready to die for his belief; for all his hopes become centred in that belief: and yet this belief — what is it but the mere accident of his birth? — the conventionalism and hereditary insanity of his class? Every one can see the extreme folly of his neighbor's belief: but his own is a divine mystery, — a

thing too high for human reason. The lover worships Helen's beauty in a brow of Egypt. The theologian will worship bad logic, bad morality and impotency, as the highest excellence: and, just as the lover was caught by Miss Smith at No. 7, instead of by Miss Brown at No. 8, so, from such a house you may safely predict will come forth a race of Jews, and out of the next a race of Jumpers: just as certainly as a cat will have kittens and a dog puppies. A Frenchman speaks French, an Englishman, English: but Man is entranced, — dead asleep, — and there is no power in words to cause him to wake, and see these things, so full of amazement and humiliation to his spiritual pride. When men awake, they will not believe that they have been doing and thinking what they have. It will appear all as a dream. But it is no dream. It is a paralysis of one side of the understanding; a lost sense; a hereditary or induced blindness: but the lights which are already glimmering about the new philosophy will soon grow brighter, and begin to arouse men from their slumber.

As regards belief in a future existence, the greater number who receive this as a most pleasing doctrine of faith, consider that we transfer our affections and desires to the other world, and shall there again meet what has been dear to us in this life. The wife expects to meet her husband and her child; the ploughboy to sit on a gatepost, and eat fat bacon all day long. Swedenborg's notions tally with these worldly ideas and fireside doc-

trines. Few would care for heaven, if they were to leave all their associates in this life, and become something else. I see no great harm in the fancy of another life, so long as it does not interfere with our good conduct in this, nor include the horrors of Hell, and drive men mad, or destroy their courage and true magnanimity. So long as we recognize no spiritual influences interfering with natural law, the daydream of another life may be harmless enough.

In considering the nature of this continued identity, which is no more wonder than the continued form of any thing else, or the continued reproduction of the same type, — an oak from an oak, a man from a man, — we find the power chiefly to consist in habit or memory, and the ability to reproduce impressions, in the sequence in which they have occurred, and in relation to time and place. Identity is a matter of memory, or an individualizing of the sequence. When this does not exist, as in cases of double consciousness, there is no identity. Many cases have occurred in my experiments, when sleep-wakers have not known themselves; and some have every thing to learn afresh in these states. Identity is memory occurring with the sense of personality. I seem to be the same that I was yesterday; but I have no notion of identity with what I was, where memory does not hold — when a child, or when a baby, for instance; nor can I say when I first became a being, or had the sense of personality. What becomes of iden-

tity when a man believes himself a piece of glass? In Bethlem Hospital there are two madmen, who disputed which of them was the Christ; each identifying himself with Christ. At last, some one suggested that one might be Christ and the other the Savior. They were quite satisfied; and they address each other now as Christ and the Savior. It is true, these are madmen, and exceptions: but to a law of nature there are no exceptions. We may argue that soap bubbles that we see floating in the air are solid bodies; but if one comes against the wall and bursts, our fancy is destroyed at the same moment. One false case of identity takes away all reliance or argument, as to the continuity or unity of being from the ordinary sense of identity.

With regard to the future, we experience consciousness at rest in sleep, — annihilation for a period: and we contemplate all nature changing, and every form falling away. Stones, plants, animals, all passing away; and we see that Man forms no exception. Sleep is ever suggesting to us the idea of rest, and using us to the idea: and my aged friend is pleased to contemplate the image of a sleeping child, and ready to welcome eternal rest when the change comes. Such is all the hope and the peaceful contemplation of a Baconian philosopher in his 80th year. "All that which is past," says Bacon, "is as a dream; and he that hopes or depends upon time coming, dreams waking." And again, "I make not love to the continuance of days; but to the goodness of them; nor wish

to die, but refer myself to my hour." — But many seem to think there is something noble in the belief of a future, and of a retribution; and of a Father in heaven, or a personal deity; and cannot conceive of the unselfish sublimity of a more philosophical view of things. But what can be more impressive than the idea of the infinite and the eternal omnipresent Law, and principle of Nature? — that Man is of the dust; and that consequently every grain of dust contains the latent principle of human nature, and of instincts and powers perhaps higher than mind has yet conceived of; and infinite to our conceptions? What more noble and glorious than a calm and joyful indifference about self and the future, in merging the individual in the general good, — the general good in universal nature? And what are all these creeds and conventionalities but empty vanities, — a false show, — the swaddling clothes of children, — the crutches on which decaying age, broken down by false stimulants, supports itself? They are the false props and stays that have cramped and spoiled the natural body, and hindered its development in a vigorous growth, and its being able to sustain itself in true simplicity and dignity. But when men have become accustomed to false stimulus, it is hard to persuade them to taste water from the pure spring: and it is only the knowledge of the true philosophy of human beings, and the origin of all opinions and habits of thinking and feeling, that will change men's thoughts, and temper their passions.

We may preach these things, and men will think us mad, or something worse. Truth and the progress of humanity have at every step of advance been thought a desecration; as Eldon thought it a desecration of the law to propose doing away with capital punishment for stealing a handkerchief. But when we once fairly pass the next corner in progress, and men acknowledge the laws of mind, persecution will cease, and be regarded as the extremest folly: as much so as when the child or its nurse beats the stool over which the little one has fallen. Man, who has seen himself only under a mask, will at length see himself as he really is. This will be the greatest, and the only wholly true and lasting revelation in regard to Man, the world has received. We do not war against any thing that is true in any one's thought or belief; nor against the rights of men and of property in any sense; but only against lies, hypocrisy, and delusions of every sort. We desire real freedom, — the freedom of the mind to perceive clearly what is true, and to reason justly on all questions. This only can be the beginning of the reign of love, when men shall no more be irritated, by notions of free will and responsibility, to revenge, and pride, or be pampered in any foolish longings whatsoever. Nature and the mind shall then be no longer cabined and cribbed by ignorance of the human constitution, and by the quaint follies of conventional fashions of thought. Art must not trim and deform, but only imitate, Nature. Reason must not

anticipate and prejudge, but from the beginning learn what is true. Nor need we fear too much light; or that Nature, and the nature of Man, will err from any amount of real freedom and real knowledge we may acquire. We cannot go far enough, or dive too deep, or spread our thoughts too wide, so long as we hold close to the true method of induction; for Man, the interpreter of Nature, is himself enclosed by the laws of Nature; and Nature cannot err; but the way has been devious; and men's wildest fancies and greatest imperfections are but the necessary steps in progress.

And what a hopeful and calming influence has such a contemplation of Nature! At this moment it is not I, but the nature within me, that dictates my speech, and guides my pen. I am what I am. I cannot alter my will, or be other than what I am, and cannot deserve either reward or punishment. And why should I require another life, or form of the same consciousness, or the same individuality and identity? Why not every grain of sand that spreads over the wilderness possess a living condition? Why should I live on in the future rather than have existed through the infinite past, — as some imagine they have done? And what a chance (if I may use the term) is my existing at all! A minute later, — nay, a second later, or the slightest change of circumstance in my conception, and it would not have been I that was born, but some one else. The slightest convulsion in the world would change the whole generation to come, and the

race of beings consequently forever. Wondrous thought! But it is truth, and who can doubt it? But enough on this topic. Let us to another.

The great fact of the Association of Ideas may be said, in the first place, to be founded on the arrangement of the organs of the brain, in harmony with the relations of the faculties. Thus the great fact and principle of the Association of our Ideas and feelings may be read upon the plan and associated arrangements of the parts of the brain which I have explained. We observe how the senses are associated, and how one fact is conveyed by different channels to the same organ, giving the same idea. The touch, for instance, gives form; and so does the eye; and so, in a measure, does the ear. The senses help and correct each other; while, at the same time, each has its particular province. The Perceptive faculties are associated together, first in recognizing an object; then its form, space, position, color, weight; and then we consider its properties; its use, its origin, its likeness or unlikeness to other things; its beauty, its construction, &c.: and then we give it a name. In all this there is a natural growth or evolution of one perception or idea from and with another. One relation suggests or evolves another; just as from the top of one hill we view the next, or several others: and the whole of these ideas, as relating to one object, group, or class, may be said to form one idea, or one conception of such; almost as much

so as a number of sheep are associated together in the idea of a flock.

The brain is one great organ, or congeries of organs, evolved together in certain relations, and with certain capacities. It is a world within itself, and yet relating to, and depending on, all that is without. The mind evolved from the material of the brain is an impress of Nature, and corresponds with the nature and principles of the world without, rising from the mere outward perception of things to the workings of principles and laws. The mind depends on the condition of the brain: the brain on the condition of the rest of the body; food, stomach, digestion, air, exercise, &c.; and again, on all the external circumstances with which it is impressed. Of all these the mind is an exact result; as much so as any music is the result of the nature of the instrument and the powers of the musician. The mind, set in action, passes into its natural and acquired harmonies or sympathies, just as the Æolian harp does. The laws are as determined in the one case as in the other, and the results present an exact correspondence; for it is the same Nature, acting in different spheres or forms. You have the bird's mind in its song; and you have the Man's mind in his songs. Were it not so, there would be an end of music and the opera. The faculties of the mind play among themselves, and exhibit the peculiarities of the instrument, and whether it be in tune or not, and what strings have been tightened or loosened. The

language of music, when it is a true utterance, is the most perfect development of all languages. Would that the mind was always in tune, and all was sweetest melody, and radiant harmony! But alas! for the discord of passions, and the discord of untruth, and the scraping on the instrument in self-considerations, — and the sounding brass and tinkling cymbal in our pride and vanities! We talk of free will. From the instrument not recognizing its own harmonies, transitions and motions, we feel that we can will, but not what determines the can and the will. We do not see that the mind is a true republic, or that the Will, the President, the Executive power, is chosen by the people: that the Will which determines is itself determined. Will is the echo and act of the majority and strongest power: as clearly so as the weathercock points to the wind, and the ship follows the impress of the rudder and the sails, and is carried along by wind and tide. If it could think, it would imagine that it slid away by its own impulse and will, or undetermined force. The world would think itself free in its motion round the sun, until it discovered the laws of its motion, which determine its course to be precisely what it is, — a speck of dust whirling about and about, and filling its little place in the harmony of the universe. Free will! the very idea is enough to make a Democritus fall on his back and roar with laughter, and a more serious thinker almost despair of bringing men to reason, — to experience the advan-

tages of knowledge, and the calming influence of a recognition of universal law and necessity.

It is the varying associations of ideas and feelings which constitute mind, and by which mind is in itself displayed and controlled. In the similitude of things, truth is associated with light, ignorance with darkness, brightness with gayety, the quavering on a stop of music with the sparkling of light upon the water, gloom with grief. Beauty in a landscape may recall any other form of beauty, — as that of woman, or of man: and such similes and correspondences in our associations become elements of art and poetry. Every simple color or tone or form has its influence and correspondence and associations in the mind, as the instrument of instruments, the mirror and principle of the whole. Thus music, like all external nature, acts upon the mind, and finds its correspondence: and were the brain fully developed and exercised, the correspondence and response would be full and complete. There is music of war; "spirit-stirring drum, and ear-piercing fife," and martial strains. We have love music, and sacred music, and songs of humor and conviviality. And a mind in such full harmony and tune as Shakspeare's would appreciate every characteristic by a responding influence on his brain. Thus the character of music has a conformity with the dispositions and nature of the mind; and will soothe or dispose the mind in particular ways, in accordance with this correspondence. Nevertheless, if the mind be pre-

possessed by any passion or habit, whatever stirs the spirit may only help to fan the flame of such disposition: and the spirit-stirring music which would impel to war, may also incite ambition or love, &c., according to the condition of the mind impressed. Different sounds may become associated with particular ideas or feelings; and some may not recognize the distinctions between the expression of music and the mere sense of sound or harmonies. Nevertheless there is a true correspondence between the forms of music and the forms of mind; but the mind must be capable and free to distinguish and receive true impressions, or will be at fault: just as a prejudiced mind finds in evidence and argument only confirmation of its errors, and reason for that which it desires.

The first principle of Association is from the harmony and dependence of the faculties among themselves, and their relations to external nature: and these relations are fundamental, or more or less acquired through habit and circumstance. The mind becomes crippled and warped and prejudiced and diseased, after a strange fashion of mis-education and error, and it is no longer sane. Whatever has come together, and been presented, and appeared in company, becomes associated as one together: to the Christian, the Bible and religion; to the Mohammedan, the Alcoran and religion. Some have associated fear with a mouse. Others I know go into fits at the sight of a spider. Others shudder at the sight of a pack of cards on a Sun-

day. We associate evil with a bad man, and make it a person and black, and call it the devil. The African, on the other hand, associates evil with a pale aspect, and makes it a person and white, and calls it the devil. We associate motion with wings, and so paint those feathered appendages on those impersonated virtues we call angels, whom we surround with light and haloes, and give them light golden hair and blue eyes. The heathen gods and goddesses were impersonations of qualities, an association of qualities with ideal forms, personifying or representing the abstract ideas. In visions, when people fancy they see spirits or ghosts, impressions unconsciously evolve embodyings, projected on the vision. Such is our tendency to associate every thing with persons or objects, according to our familiar conception. Those who have an impression of the death of friends (as several whom I know have) sometimes, as it were, see the form of the dying person; at other times only have an intimation of the circumstance. And some have a form which they always associate with evil in the *clairvoyant* state, if not in their ordinary condition. Others in dreams have simple associations; of which last, Bacon's dream on the death of his father is a good instance. Bacon says,* "There be many reports in History that upon the death of persons in near relationship, men have had an inward feeling of it. I myself remember that, being in Paris, and my father dying in

* Natural History, Cent. X. sec. 986.

London, two or three days before my father's death I had a dream, which I told to divers English gentlemen, that my father's house in the country was plastered all over with black mortar." — I myself, while sitting up with a lady who, from extreme ill health, could be held alive only by being kept continually in a mesmeric state, on two occasions, in the quiet of the night, have known her recognize the death, at the moment of its occurring, of persons at a distance, whose immediate danger was unknown. On one occasion, it was a clear sight of the fact and circumstances, though occurring a hundred miles away. This was when the dying person was a relation. But in the other instance there was no relationship. The person was very ill, like herself, and it was a case with which she had great sympathy. The intimation of the death appeared in the form of a black cat coming over her bed; which to her was the associated form of evil and death.

Association arises out of similitudes, — of likeness in the same sphere, or resemblance and correspondence in some other sphere: and again, in contrasts. Associations arise from habit, and from reaction and exhaustion, from sympathy and antipathy. We fall upon reaction, contrast, &c., just as after looking at a red spot, the sense falls for relief upon the opposite condition, and presents a green image. How many silly persons you see scold and coax by turns; and ridiculously short turns they often are! Light to truth, truth to

beauty, beauty to goodness, are similitudes or correspondences in different spheres: and we see these associations in different media by the terms we use: — "a beautiful character:" "sweet music:" "a bitter feeling:" "a tone of mind:" "a bright conception:" "flashes of wit."

The sympathies and relations in mind and body are natural associations: and so again is the expression of these in the language of actions, motions, or sounds; and this again developed into artificial signs; all which matter you doubtless understand as well as I. Habit is a great principle of Association, and likewise of Memory. Habit induces repetition. Associated ideas present themselves together, or follow in regular sequence. If I would recall a passage from a book, I see the page, and the place on the page where I saw it first. If I would recall an event, I place myself as nearly as possible in the position in which it occurred. We have a pre-notion that in memory we know a thing, and look for it, as it were, in a circle, and direct the attention as if there were places in memory. Phrenologists have denied a separate faculty of attention: and yet there is no faculty which acts more alone, and appears to be more distinct. The dog associates sport with the sight of the gun; — as much so as his master. How pretty to see the flocks of pigeons at Venice, all fluttering about in the Piazza, at the sound of the bell of St. Mark's striking twelve!

Most of our muscular movements are uncon-

scious, associated movements; and results not interrupting but often essential to the abstraction and continuance of thought. The associations in time are more interesting, and perhaps least understood. We know what strange, but quite natural associations occur in our dreams; and often when we are awake. And when we would think well, the more freely we let the mind act by its own power and laws of association, the better. Some minds do not sustain these associations in sequence well. They want the faculty of order, and they fly off to something grotesque, or away from the matter. We generally spoil the results by forcing attention; and in trying too hard to remember, we often forget the more. Newton said, that he let his mind rest upon a subject, and waited for the ideas to come. I have often tried the effects of indirect association in the mind by speaking out my thoughts as they occurred, and suggested each other, wholly without guidance; and I have been astonished at the happy sequences that would occur, and the excellence and originality of the matter, and the mode of expression, — such as I cannot effect when I sit down to direct my attention and write. One of our most eloquent writers and speakers tells me he can write only by first walking about the room, and uttering his sentiments as in a speech. Again, (and I now must end,) we know how associating words with music, and sense with rhymes, assists the memory. We should never recall the number of days in each month, but for

and will observe how it is excited to anger and vengeance, often at a very early period, and even against inanimate objects; and whether it be pampered and trained to vanity and pride, concealment, terror, superstition, selfishness, and falsehood, what it acquires by the force of example, and what is owing to its peculiar constitution; how evil circumstances will subdue a good tendency, and how a good natural disposition will triumph over evil influences. He will not lose sight of his object when the child has become a young man at college, where we might expect to find the best education the knowledge of the age can afford. But here he will lament to observe inducements to idleness and dissipation, and vanity exhibited in an imitation of the lowest vices of society, which the youth is induced to think a fine thing, and to be a kind of wild manliness of his nature. Seldom do we find * the youth animated to solemn aspiration, and made earnest and hopeful in the pursuit of real knowledge. More frequently our future legislator will be found strutting abroad, with an immense Joinville tie, driving a stage coach, horse-racing and betting, or perhaps doing what is far worse; acknowledging no higher object in life than pleasure and ambition — pleasure in low pursuits, and ambition towards wealth and position. His studies are not of much account. The ability to make a few quotations from the classics, and a smattering of mathematics, are the chief results of a college

* Appendix T.

education. The sciences and modern languages are neglected, and he learns but little of general literature and history. Above all, he remains ignorant of himself — of physiology and the laws of Man's nature, which, of all knowledge, is most conducive to a moral and useful life. He will imbibe a confused notion of unintelligible dogmas, — which are called religion, it is true, and which are vainly supposed to be all-sufficient to guide him through life, and to attain for him a place in a heaven after he is dead. He is taught that the first man was created perfect by a being who is all-powerful and all goodness; that this man nevertheless erred, and brought death into the world; and that, though he made not himself, he was punished for being what he was: and that all others inherit condemnation on this man's account; that satisfaction is required by the designer and creator of this abortion for his own doing, and what he had predestined from the beginning: that he makes himself a son — who is himself — and is nailed upon a cross to be his own satisfaction * for what he has done; and that, in

* "It was a strange fancy to think to gratify the divine bounty with our afflictions, like the Lacedæmonians, who regaled their Diana with the tormenting of young boys, whom they caused to be whipped for her sake, very often to death. It was a savage humor to imagine to gratify the architect by the subversion of his building, and to think to take away the punishment due to the guilty, by punishing the innocent; and that poor Iphigenia, at the port of Aulis, should by her death and immolation acquit towards God the whole army of the Greeks from all crimes they had committed." — *Montaigne.*

believing this, men shall be saved, and forgiven the sin which is in their nature, and inherited from another. At the same time, man cannot believe unless he be made to believe. He is taught to respect the morality of vengeance and of partiality; that man can do no good of himself, and yet has free will; and that the soul or life can be separated as an entity, and be independent of the living thing. He is taught that few are chosen to heaven, but the greater number to damnation; and this is to be considered a most consoling doctrine. And while men may be born to hell fire, they are instructed to love God with all their hearts, and to forgive one another to the seventy times seven. Stimulated to selfishness by the idea of reward and punishment, they are required to be unselfish, and urged to set their hearts on high things. They are taught to believe that they could not have existed as a consequence of nature, and as nature; but that they were created by a being resembling themselves, who is at the same time incomprehensible; that all nature is a fabric made out of nothing; but that this wondrous Being — the first cause — is himself without a cause or beginning. They are to consider it necessary that man should have a maker, but that the demand of causality is to rest there. When each was a child, he was told that he came in the doctor's pocket, and that he must ask no more questions. He is now told that he was brought out of nothing by the great physician, and that it is ·icked to inquire further. A lesser difficulty is

thus solved only by a greater difficulty of the same nature; or rather, it is thus that a difficulty which does not exist is invented and solved.

This restless and craving absurdity of human wisdom may truly be called vain philosophy. Men are taught logic; but it would seem to be the most useless invention, seeing that they afterwards believe in the most illogical conclusions. They are taught, in fact, to believe in what is intellectually most absurd and monstrous, and morally vicious and most barbarous. But why proceed; for the extent and folly of all this you know as well as I, and the horrors upon horrors which have been the consequences of these dogmas, the philosophy and origin of which may now be understood.

There are thousands of noble minds now free from the dogmas of Christianity, which they see to be neither reasonable nor moral, nor logically deduced from the scripture records; and that these records are contradictory, and fail in historical evidence. But there are other minds still in the transition state, not wholly released from supernaturalism and the habit of thoughts which they have acquired; and these, desiring sympathy and a continued existence, please themselves in the belief of a God and a future. To some persons so situated it seems most sad and terrible to be left alone without a god upon this dreary earth. The stars and the sunlight, and all the loveliness of nature, but deepen their solitude, and seem a fearful mockery. They find no solace in the uncertain

and transient nature of human affections. What is all the world to them if to-morrow they die and are no more? They have found that Christianity is not historically true; and they shrink from finding their remnants of supernaturalism unphilosophical: and argument will start up from this feverish fancy, and mislead them for a time. The horror of loneliness in life, and annihilation at death, leads men to build upon "their pleasing hopes and fond desires," and create an ideal object and belief to satisfy this longing; and the result is, that their affections are perverted from their proper sphere of action; which is in the love and companionship of their fellow-creatures. Men must learn to forget themselves in their love of nature, and the love of their fellow-men; and we must live on our thoughts towards others, and not on theirs towards us. All else is "vanity and vexation of spirit." We must learn to submit to the rule of nature, and remember that unhappiness and discontent are selfishness — impossible to a truly heroic and loving nature.

Such men as Bacon, Hobbes, Locke, Milton, Gibbon, have remarked on the unsatisfactory nature of the education afforded at our colleges. While knowledge advances with rapid strides, our colleges remain entranced, or hardly move at a snail's pace; so that wise young men have to educate themselves, after they leave the University, and are fortunate if they but gradually unlearn the dogmas they have been taught. Philosophy has always been engaged in unteaching the world; and it has still a mighty

task to perform in this respect. Chemistry, Geology, Astronomy, Optics, &c., are now freed from superstition, and have become true sciences. It remains for philosophers to place Physiology and Mental and Moral Philosophy in the same position as positive science reached by induction.* The delusions of ignorance and superstition are doubtless inveterate, and will not yield without a struggle and a spasm: but progress is a law of nature; and to remain where we are, were it possible, would be convulsion and ruin. Democracy is advancing upon society. Neither priest nor soldier can restrain its natural course. Henceforth, the philosophy of Man, rightly understood, must restrain and guide man wisely and gradually into his true position — the position which his knowledge and his nature demand.

But to form institutions in advance of society is a great mistake: and a still greater mistake is to keep our institutions behind the advance of intelligence. It is a common remark, that so long as human nature remains the same, things will remain pretty much as they are. But, on the contrary, I say that with a better philosophy we must advance: and that one day society will enjoy, to a great extent, liberty, equality and fraternity. The time will come when these will not be mere idle words upon a banner, but sentiments deeply engraven on men's hearts, and exhibited in their conduct. We may prophesy this with the same certainty with which Bacon prophesied the advance and influence of

* Appendix U.

general science: and it is right that we should do so; for it is the end that gives value to the means, and life and interest to the labor. Men and nations get on much in the same way under all religious persuasions. It is not therefore the particular faith that is so essential, but the moral law which their faith binds them to whilst they are yet ignorant of the true philosophy of Man, — of the laws of his nature, the right mode of expanding his intellectual and moral being, and the consequences of misconduct. — Pure spirituality is exhibited and understood only through high intelligence. It is only by knowledge of Man that the principles of morals can be applied in all their force and usefulness to practice. There is a certain negative perfection and simplicity in ignorance, no doubt: but this becomes lost in superstition, and can only be regained and brought to its highest state by real knowledge. The innocence of the child will reappear in the wisdom of the philosopher; and the lesser minds will be led by the stronger ones, as the sheep which in the East follow the shepherd.

From the recognition of universal law we shall develop a universal love; the disposition and ability to love without offence or ill feeling towards any. We shall see that no one can be a true friend to us who is not a friend to all. We shall learn that dirt is beauty unformed; that evil is undeveloped good; or rather, that we judge the universal in reference to ourselves, not ourself in reference to the universal. Men, for the most part, know not that which they

believe they know, nor perceive the depth and breadth of their ignorance; but each is wise in his own conceit, and secure in his own folly: and "the fool hath no delight in understanding, but that his heart may discover itself." He is wise in his generation who preaches to the world what the world already knows, and flatters the conceits of men. A Christ for these times will be persecuted by these times; for a true prophet must ever be an offence to the world, until the philosophy of Man has become recognized as a true science, based wholly upon natural causes. Men have no faith in truth; but will uphold error, believing it necessary as a kind of police force. They exaggerate the danger of a new truth, and do not recognize the good. In what is old they exaggerate the good, and do not recognize the evil. They do not perceive what is essential to the development of the time, and must be: but wait the deluge. Men run after every new fashion in trappings; stare at the stupid diamonds which are stuck on an Indian prince, and hurry to see a new beast at the Zoölogical Gardens. All the while, their ideas "round about in darkness." They are ridden down by puritanical priestcraft. The press dares not speak out; and, "for fear of the folk," wise men are silent. "Punch" is the wisest and merriest fellow among us. He attacks the British lion without hesitation; but is no snake-charmer, and recoils before the venom of British bigotry. Government, the press, scientific men, and all, are prostrate slaves; not before nature, who is

only won by obedience; not before Baconian wisdom, or Christ's morality: — these are pushed aside, that men may lie prostrate before old wives' fables, far too silly for a nursery tale. And then we hear of miracles, as if it were not true, as Montaigne has well said, that belief in miracles is a measure of our ignorance. And, as for the fulfilment of prophecy, what can that prove but that the power of foreseeing events is a power in nature? In ignorant times it is supposed to be Divine inspiration: and that the supposed miracles should have been reported correctly, and without exaggeration, would have been a greater miracle than that which is reported. Most of that which is reported, and is supposed to be miraculous, is now easily accounted for. Errors and contradictions in the narratives are apparent. Make but a necessary and reasonable deduction for exaggeration, and the whole is understood. If no alteration is to be allowed, though error be proved, and supposed miracles are shown to be natural consequences, why then, to be consistent, we must believe in the miracles of other religions, and all equally well-authenticated tales. If men will not be reasonable, we must insist upon their being consistent in their folly. Carry out the principle on which any folly rests to the end, and it will destroy itself, and become its own condemnation; whereas, the further you extend a truth, the more clear and consistent it appears. Those who think their religion true will not fear the approach of light, but will be heartily glad to welcome every

new truth; being satisfied that truth cannot oppose truth, but that every addition of fact must help to confirm or illustrate what was known before. Those who are uncertain of their position, or of their ability to prove what they profess and desire to retain, are the first to oppose the advance of science. But we must disregard Man's thoughts, and think only of Nature's truth.

Mr. Sandby, in his interesting work on "Mesmerism and its Opponents,"* has confidently asserted that no comparison can be made between the facts of Mesmerism and the supposed miracles of Christ. Mr. Sandby wholly overlooks the fact that Christ (taking the narrative as it stands) was constitutionally a *clairvoyant;* that he had "the gift of prophecy," and the ability to read men's thoughts, and to know the nature of their diseases, and their cure. He listened to the voice within him as somnambulists do. He had his attendant spirit, as Socrates had: and this voice of the intuitive faculty, he, like Swedenborg and others, believed to be the voice of God. He believed that he was divinely inspired, — a missionary, a prophet, the child of God: and out of this other delusions arose, as in all similar cases; and the carpenter's son, like the boy Davis in America, astonishes men with his learning. He prays and fasts, and is subject to ecstatic fits, which are termed transfiguration. He possesses an extraordinary power to influence others,

* "Mesmerism and its Opponents," by Rev. George Sandby. Longman.

and to heal diseases, on account of his peculiar abnormal condition; and he has a belief in an almost invincible force of faith; that is, if you will but have faith in your ability, you may move mountains. Such being the case, Mr. Sandby's arguments fall to the ground: Christ would necessarily have an intuitive knowledge of diseases, and whether he could cure them or not; and therefore would never fail. In the same way, he would know whether a person were dead or only in a trance, from which he might arouse him, and even at a great distance. He would also, in choosing his disciples, know those who possessed the necessary qualifications, both as regards the mental and physical power. He was subject to the ideas of his sect, as somnambules are to the religious atmosphere in which they exist: and like them, too, he was possessed with the notion of a mission: that he was divinely inspired, and destined to reform the world. Had he lived a little longer, this feature of the state would doubtless have grown into extravagance; and the world would have lost its Christianity. If we were to receive all we find in the account as fact, what can we say to the sick persons' being actually inhabited by devils; which devils spoke to Christ, and on one occasion besought him to let them go into a herd of swine; and that the herd of swine, to the number of two thousand, rushed into the sea, and were destroyed? That he had not always "clear sight" is shown in the instance of his going to the fig-tree, and being

disappointed that there were no figs: and are we to approve of his declaring therefore that the tree shall henceforth bear no fruit? Surely these are not the doings of pure intelligence and high morality. Mr. Sandby adduces the account of the fig-tree instantly withering away, as a matter altogether out of the pale of Mesmerism: but Bacon did not think thus, though he was not acquainted with the wonders of mesmeric power; but gives it as an experiment to be tried, — whether, by the force of imagination, you cannot cause a tree suddenly to fade. — But Mr. Sandby quotes only one version of the story. He forgets that in Mark it is stated that it was only noticed that the tree had withered the following day. This is very important to note; because such discrepancy shows that the accounts cannot be relied on for accuracy; and it relieves us of the idea of the instantaneousness of the effect; which is the point Mr. Sandby relies on.

There are many most distressing cases of purely nervous condition which I have cured almost instantaneously. Nor is touching always requisite, as Mr. Sandby supposes. In the case of the man who was dumb and had an impediment in his speech, it is described that Christ took him aside from the multitude, and put his fingers into his ears; and he spat, and touched his tongue, &c. This is clearly a mesmeric process; and we know not how long the process occupied. The patient was taken aside for the purpose. — In another instance, Christ spat on the ground, and made clay

of the spittle; and he anointed the eyes of the blind man with the clay, and then bade him go and wash in the Pool of Siloam. — Again, in the case of the man with the dumb spirit, after his fit, he becomes "as one dead," or in a mesmeric sleep; and Christ took him by the hand, and he arose. — Again, in the case of blindness, the influence is clearly not instantaneous; for, first, there is a partial recovery, — the seeing persons like moving trees. The operation is renewed before the complete sight is restored. — But I need not continue these instances, which nothing but professional blindness in one aware of the nature of Mesmerism could overlook. — Again, Mr. Sandby is not aware that the peculiar condition of one person can be conveyed to another. He is not aware of the influence of faith, and of mind on mind; and that Christ might choose his disciples as fitting material to act upon. Mr. Sandby considers it miraculous that the apostles were able to do what Christ did, and had his powers conveyed to them. It is one of the remarkable facts of Mesmerism, that the nervous condition of one person may influence another in a similar way, and enable him in mesmerizing to produce similar effects. One person may influence another as the loadstone influences a piece of iron, and makes a magnet. — On one occasion Christ felt the virtue going out of him. At the time when I was worn with mesmerizing night and day, and very sensitive, I experienced this repeatedly, and that patients under certain

circumstances have the power to help themselves to the sanitary influence, just as they might attract a contagious disease.*

As for the appearance of Christ after death, there are thousands of ghost stories of a similar character. In all cases, these appearances are subjective phenomena. When we think of the power manifested by such men as Greatrakes, Swedenborg and Zschokke, we need not marvel at the prophets of the East; nor, once admitting the existence of a faculty, can we well limit its development. Christ, the prophets, the oracles, all exhibit features of the same great fact, — the existence of faculties in Man beyond sense, experience, and reason; which faculties are chiefly called forth under abnormal conditions, but are seldom exhibited in a wholly pure state. — In this state, men listen to the voice of intuition, — fancy themselves inspired, — are carried away by the delusion, — and delude the world with their wanderings. Christ's case seems to me as clear as daylight. — But I will end now, dnd reply to your questions in another letter.

* Goethe describes instances of his grandfather's insight or *clairvoyance*, and says that "it is worthy to note also, that persons who showed no signs of prophetic insight at other times, acquired for the moment, while in his presence, and that by means of some sensible evidence, presentiments of diseases or death, which were then occurring in distant places; but no such gift has been transmitted to any of his children, or grandchildren, who for the most part have been hearty people, enjoying life, and never going beyond the actual." — *Goethe. Autobiography.*

XIX.

RELEASE FROM NOTIONS. — ENTRANCE UPON KNOWLEDGE.

H. M. TO H. G. A.

I AM glad I asked you in what sense you used the words "God," "Origin," &c., for your reply comes to me like a piece of refreshing sympathy, — as rare as it is refreshing. I cannot tell you how the pain grows upon me of seeing how little notion men have of the modesty and largeness of conception necessary in approaching the study of themselves or any other part of nature; and in the conduct of their mere daily business. Of all the people I have ever known, how few there are who can suspend their opinion on so vast a subject as the origin and progression of the universe? How few there are who have ever thought of suspending their opinion! How few who would not think it a sin so to suspend their opinion! To me, however, it seems absolutely necessary, as well as the greatest possible relief, to come to a plain understanding with myself about it: and deep and sweet is the repose of having done so. There is no theory of a God,* of an author of Nature, of an origin of the universe, which is not utterly repugnant to my faculties;

* Bacon says of Epicurus, (Essay XVI.,) "His words are noble and divine: 'non deos vulgi negare profanum; sed vulgi opiniones diis applicare profanum.'"

which is not (to my feelings) so irreverent as to make me blush; so misleading as to make me mourn. I can now hardly believe that it was I who once read Milton with scarcely any recoil from the theology; or Paley's Natural Theology with pleasure at the ingenuity of the mechanic-god he thought he was recommending to the admiration of his readers. To think what the God of the multitude is, — morally, as well as physically! To think what the God of the spiritualist is! and to remember the admission of the best of that class, that God is a projection of their own ideal faculty, recognizable only through that class of faculties, and by no means through any external evidence! to see that they give the same account of the origin of Idols; and simply pronounce that the first is an external reality, and the last an internal illusion! To think that they begin with the superstition of supposing a God of essentially their own nature, who is their friend and in sympathy with them, and the director of all the events of their lives, and the thoughts of their minds; and how, when driven from this grosser superstition by the evidences of Law which are all around them, they remove their God a stage from them, and talk of a general instead of a particular Providence, and a Necessity which modifies the character of prayer; and how, next, when the absolute dominion of Law opens more and more to their perception, excluding all notions of revelation and personal intercourse between a God and man, and of sameness of nature

in God and man; — to think that, when men hav reached this point under the guidance of science, they should yet cling to the baseless notion of a single, conscious Being, outside of Nature, — himself unaccounted for, and not himself accounting for Nature! — How far happier it is to see — how much wiser to admit — that we know nothing whatever about the matter! And, from the moment when we begin to discover the superstition of our childhood to be melting away, — to discover how absurd and shocking it is to be talking every day about our own passing moods and paltry interests to a supposed author and guide of the universe, — how well it would be for us to set our minds free altogether, — to open them wide to evidence of what is true and what is not! Till this is done, there is every danger of confusion in our faculties of reverence, of conscience, of moral perception, and of the pursuit and practice of truth. When it is done, what repose begins to pervade the mind! What clearness of moral purpose naturally ensues! and what healthful activity of the moral faculties! When we have finally dismissed all notion of subjection to a supreme lawless Will, — all the perplexing notions about sin and responsibility, and arbitrary reward and punishment, — and stand free to see where we are, and to study our own nature, and recognize our own conditions, — the relief is like that of coming out of a cave full of painted shadows under the free sky, with the earth open around us to the horizon. What a new perception

we obtain of "the beauty of holiness," — the loveliness of a healthful moral condition, — accordant with the laws of nature, and not with the requisitions of theology! What a new sense of reverence awakens in us when, dismissing the image of a creator bringing the universe out of nothing, we clearly perceive that the very conception of origin is too great for us, and that deeper and deeper down in the abysses of time, farther and farther away in the vistas of the ages, all was still what we see it now, — a system of ever-working forces, producing forms, uniform in certain lines and largely various in the whole, and all under the operation of immutable Law! But I need not enlarge to you on the privileges of a state of freedom and reality. You know what it is to have no longer cause to blush for the moral character of your faith, and to tremble when a passing breeze finds its way into the old cavern, and shakes the painted vapors, and threatens to dissolve them. I will only just ask whether you know the passages in Sir James Mackintosh's Diary, on Immortality and the Theists' and philosophical Atheists' conceptions of God and Virtue.* They interested me deeply, many years ago, not only on account of the solemnity of their subject and the majestic composure of their tone, but because they first (as far as I remember) opened to me a full conception of the wisdom and beauty of a suspensive state of mind on the subjects of origin and destination or issue. Oh! if we

* Appendix V.

could have Bacon back again, now, when science is daily chastening our views, and he might speak what he knew and thought, and find response in the midst of reprobation! What you quote from him is extremely interesting, and ought to set us studying him from end to end, — separating the real from the pretended, — tracking the vessel in which he stretched out over the broad ocean of Truth, rather than the tubs he threw out to the whales.

In reading over again your account of the training of a youth of our own time, I can but rejoice that nature is, on the whole, too strong for our perverseness: that the brain of every human creature will work, in some sort of balance of its parts, through all the mischief we do it by our ignorance and faulty aims. What beautiful conscientiousness and earnestness we meet with here and there, amidst the Vanity Fair of such a college life as you describe! — and what a hail to truth makes itself heard now and then amidst the hubbub of dogmatism and denunciation! I see, however, more and more, from year to year, the moral mischief that is arising from the loose and uncertain way in which Christianity is regarded, here and there throughout society in England, and especially in the Universities. I shall be glad of any increase of Science, chemical, physiological, logical, or moral, — which may put an end to the state of pretence in which we are going on from day to day. It would interest you to see a letter I am going to answer from a

clergyman far in the interior of the United States, who declares that his people, as well as himself, want only truth — sure that it can never be hostile to holiness. They are not satisfied of the Christian religion being a revelation attested by miracles, and do not see (being Theists) why its value depends on the establishment of such a claim. The phenomena of Mesmerism, — the healing of diseases, thought-reading, *clairvoyance*, and pre-vision. — have awakened this clergyman, as you might suppose, leaving him with a very different impression of the scripture miracles from that which he brought from college. If I could admit the narratives of Jesus and his miracles to be historically true, I should adopt your view of the powers by which he wrought them. I am disposed, rather, to regard Strauss's exposition of the case to be the true one, and to admit that the tales are mainly legendary, and a perpetuation of the ideas, and repetition of the narratives, of old Jewish traditions. In that case, however, the explanation answers alike well: for the endowment of orientals with greater mesmeric powers than the western races would alike be at the bottom of the case. No one who has travelled in the East, aware of the facts of mesmerism, can wonder at any amount of belief and statement of "miracles," which there abound on every hand. Whoever and whatever Jesus might be (of which I think we know little or nothing), the traditions which settled on his head are easily derivable from the physiological

and theological peculiarities of the race, its locality and period of time.

I agree, from my heart, with you about the supposed need of reciprocity of religious affections with a divine being arising from a deficiency of moral development. I am confident that a man who cannot find full exercise for his moral nature in our actual life is below profiting by "divine" intercourses. I am confident that the true moral life is found in going out of ourselves, — that "it is more blessed to give than to receive" of the treasures of the affections; and it is refreshing to read your strong assertion of this. I look back with a kind of horror, as well as deep pity, on myself, in the days when I thought it my duty to cultivate (against nature) an anxious solicitude about my own "salvation," — my own future spiritual welfare. I should now think this as bad as engrossing myself with storing up means of prosperity while my brother had need. How sweet it is to be loose from all such solicitude, and to let one's best nature have its free play from hour to hour!

XX.

NATURAL HISTORY OF SUPERSTITION.

H. G. A. TO H. M.

I WILL look at those passages you refer to in Sir J. Mackintosh's Diary the first opportunity. Atheism and Materialism are terms used by vulgar minds to frighten the ignorant. "We fool ourselves * with our own fopperies and inventions, like children who are frightened with the same face of their playfellow, that they themselves have smeared and smutted." Vulgar men strive to raise themselves by degrading others; and when they are foiled by reason, they swear and use bad names. To say that a man is an Atheist is to "smear and smut" his reputation, and to cause him to be avoided with fear and disgust, as if he were possessed of the plague, or were a murderer and devourer of human flesh. Every theologian, though differing from other theologians, assumes that he is in the true faith, and worships the true God; and that his faith is a revelation proved by miracles; and he conceives, with a strange appearance of presumption, that he is called upon to abuse all the rest of the world, and to strive to convert them to his particular faith, that they may partake of its advantages. But we must judge of the tree by its fruits, and not by its promises. Men have faith enough; but

* Montaigne.

not in the best things. It is not faith that is wanted, but knowledge. Faith will not give knowledge, but knowledge will give faith, and elevate its character. Blind faith is a stumbling block; enlightened faith is a clear path, and a heaven on earth.

How many significations are there to the term Materialism? And yet men who ought to know better, use this word as a term of reproach, without defining what they mean by it. Words have as many significations as the chamelion has colors. One understands by the term God, precisely what another understands by Atheism. What we understand by Christianity, another considers utter infidelity. What one sees as a terrible fatalism, another recognizes as beautiful harmony, eternal and universal law. It is astonishing how much ill feeling is avoided by bringing men to the definition of terms; by bringing men out of their feelings and imaginations down to the matter of fact; — to discuss the nature and evidence of their opinions as we should a problem in Euclid. We may express a dislike to hypocrisy, to gluttony, to irreligion, to indecency and worldliness; but a good mind will not dislike the men, but only their immoral condition. Much less will he slander any one for his honest intellectual convictions. Christians have hunted down and destroyed their victims in their turn, as Christ was hunted down and destroyed. Under every religious faith men persecute and are persecuted.

Christianity has not christianized the world. It is those who are guilty of the like offence who are the first accusers. The immoral woman hunts her sister into the street. The proud man is forever trampling upon his brother's pride. The cunning and the vain see nothing but hypocrisy and vanity in the world. The savage destructive priest condemns men to hell fire — dwelling upon those qualities of their God which predominate in themselves. The worldly mind misconstrues motives, and cannot comprehend a generous nature. The "unchristian" mind calls the Jew "dog." It is not the pure and intellectual that persecute men for their opinions, but the ignorant and the bigoted. The selfish cried out "Great is Diana of the Ephesians:" the blind and ignorant called for Barabbas. Democritus might well laugh at the foolishness of men. He would sometimes hardly know whether it were more right to laugh or to weep, or become indifferent. Men try to paint a flattering likeness of themselves, and call it God; and they usually exhibit a monster. It is said that Man is a god to the dog: but this is a mistake. Dogs fear and follow men, and bite men; but they do not worship them. We might learn from the lower animals many of the errors which struggling reason falls into. They reprove us for our fears and our hopes, and are free from the follies of philosophers and divines. But we must mend through knowledge, and cultivate men's virtues, rather than reprove them for their failings.

Xenophanes pleasantly said, as Montaigne tells us, "that if beasts frame any gods to themselves, as it is likely they do, they make them certainly such as themselves are, and glorify themselves in it, as we do. For why may not a goose say thus: All the parts of the universe I have an interest in. The earth serves me to walk upon; the sun to light me; the stars have their influence upon me; I have such an advantage by the winds, and such by the waters. There is nothing that yon heavenly roof looks upon so favorably as me. I am the darling of Nature. Is it not man that keeps, lodges, and serves me? It is for me that he both saws and grinds. If he eats me, he does the same by his fellow-men; and so do I the worms that kill and devour him." And Montaigne says, "As much might be said by a crane, and with greater confidence, upon the account of the liberty of his flight, and the possessing of that high and beautiful region. *Tam blanda conciliatrix, et tam sui est lena ipsa Natura.* So flattering and wheedling a bawd is Nature to herself." We judge according to our impressions, and the conditions of our minds. A child believes that its parent knows all things, and can do all things: and when it awakes from this dream, it is only to transfer its notion to an ideal object, — to a universal parent. How natural the growth of the idea, and the transfer! Great men have been thought gods all-powerful; and gods have been thought of as great men. "Augustus had more temples than Jupiter; served with as

much religion and belief in miracles." We only know phenomena: and phenomena are no representation of the cause of the eternal and inherent force of nature. — The dreams and promises of theologians do not exhibit what men know, but what they wish; and their wishes are follies. — The sailor wished that the earth was all tobacco, and the rivers brandy. The psalm-singer's highest notion of heaven is to be singing God's praises continually. Men "sing to the praise and glory of God," seeing in him a jealous man, — a wretched image of their own miserable selves. A man can but image what he knows, and what he feels. The impressions he has received are the materials from which the picture is composed: and though he cannot make a smallest worm or particle of dust, imagines a creator or cause to be the same vain, incompetent animal as himself. The first aphorism of the *Novum Organum* is, "Man, as the minister and interpreter of Nature, does and understands as much as his observations on the order of Nature, either with regard to things or the mind, permit him; and neither knows nor is capable of more."

But in vain does Man endeavor to search the secrets of heaven by the "waxen wings of the senses." How strange is the phenomenon of a mind like that of Mr. F. W. Newman, which, in leaving revelation, does not yet advance, but floats over from one form of error to another, and "loses itself in a mixture of its own inventions!" Mr. Newman forgets that many among those whom he

calls Atheists have gone through the experience of those religious sensations by which he is now influenced. They deny that Nature, which exhibits its forms and ends as determined and necessary consequences of what is, is designed, or could have been designed; since we must, after all, go back to a fundamental cause which is not designed, but the cause of the designer; but they do not deny this from inexperience of religious emotions. Having had his experience, they are fully capable of meeting him in argument. Fitness in nature is no evidence of design. That the lungs are fitted for breathing, and the eye for seeing, is no more evidence of design than that the seal is fitted to the impression, or that the two halves make the whole. Mr. Newman would say that we are "deficient in the religious faculty," and yet I believe that a predominance of the religious faculty has been manifested in a marked way by both of us, from our youth upwards, and has borne us past all the forms of fiction which are the offspring of ignorance and a false philosophy, to seek out and respect the real substance of faith as found in Man's nature, in relation to universal nature; — the substance, in fact, of all the shadows which men, seeing cast before them, have fallen in love with.

Mr. Newman says,* very properly, "A God uncaused, and existing from eternity, is to the full as incomprehensible as a world uncaused, and existing from eternity." His whole argument rests on the

* "The Soul," p. 36.

belief in the impossible thing free will, and in the illogical conclusion that fitness shows design, — an equally impossible thing. As I have said before, fitness in art argues design; but in nature only points to a law; to the form and nature of that which is, and of which design is an inter-reflection. Absolute free will and creative power are a downright impossibility. We must be content with the solemn, incomprehensible fact of nature, — all attempts to comprehend which are "vain philosophy and human wisdom." But those who cannot maintain an abstract idea, and from the constant contemplation of material forms, and by the obtruding self, and false analogy with self, lose themselves in generalization, personify and limit the powers of nature.

He who does not suppose a personal God, or look for a future, may, nevertheless, be most unselfish and deeply religious: so religious, that he shrinks from all the forms of worship, because he sees in them all but forms of worship, and forms of fancy, and not the spirit and the image of truth. There are thousands upon thousands who have no clear knowledge on any one question relating to their religion, and yet are most proud in declaring themselves Christian, although it be not certain that they possess any one Christian self-denying virtue.

Were Christ to appear among such persons, he would not be recognized; nor would he recognize them as Christian. Saying, "I am a Christian," and crying, "Lord, Lord!" will not open the gate

of heaven to any man; and those who would jostle in before their neighbors, shall be the last to enter, and the least in heaven; — in the heaven of a truly virtuous and loving heart. I think a man may be so religious as to be quite shocked with all notions of prayer, and all familiar intercourse with "deity" whatsoever. We must pause in wonder before the great mystery of nature, — the hidden truth and the cause, and learn that knowledge is power, and knowledge is wisdom, and wisdom and power are in obedience: for, by yielding to the law, the law is fulfilled, and works are accomplished. Christ lived and died for the good of mankind. Socrates lived and died for the good of mankind: and so ought we all to live and die for the good of mankind: and only by forgetting self shall we elevate and ennoble life. I would not accept of "heaven if I thought that others were to go to hell."

The idea of a God and ruler is essential in rude and barbarous times, just as the idea of loyalty may be essential, though the king be never seen: and the fear of hell may be useful as the fear of the gallows is useful, — in barbarous times like the present. Creeds stagnate, and prevent development and progress. Christian morals are considered perfect; but they will require much weeding and developing before they can be accepted by high and philosophic minds, — by the best and most enlightened minds of the present day. And is there no place for man's faith when he has ceased

the worship of idols? It is the idlest folly to suppose that the idea of Necessity would set men loose among their evil passions. But, that we require something to reverence, and elevate our thoughts towards, is true. Knowledge gives us a more elevated poetry, gives us the chart and laws of mind to guide us, and will exhibit to us higher objects for reverence. Is it nothing to have faith in nature; to have faith in knowledge, and in goodness, which is the fruit of knowledge? Is it nothing to have faith in love? Is it nothing to regard Nature in all her forms with profound reverence? to love truth, and worship goodness, and find no place for contempt of any living thing or condition of matter? Trained in the knowledge of the laws of mind, to find it impossible to take offence: — what a soothing influence! What a blessing, this one circumstance! what a foundation for virtue and generosity! and for peace of mind! Is it nothing to cast away ambition? to desire excellence rather than to excel? to feel a noble contentment in reflecting that you are a part of nature — a form of the eternal? Is there nothing in that faith which seeks for happiness out of self in the happiness of others, and the glories of nature, — content that in death the sense of personality shall pass away, and that you shall be as you were before you were — in a sleep for evermore? — to know that self-derived individual and human power is a fiction, a form, and nothing more? If the Mohammedan or the Christian would preach to

me, let his doctrine be wholly unselfish, or I should not attend to him. — Bishops, the representatives of Christ, live in palaces. How odd it sounds! Christ's representative in a palace; and in 1850 years, cannot settle what the effect is of a few drops of water sprinkled on a child's face! How wonderful the phenomena of credulity and priesthood!

We have watched the influence and working of men's faith, and learned to estimate their prejudices and habits of mind, and the force of the different weights which balance and move their thoughts: and when men disparage one another, and bluster about as champions of a faith, we may know what is going on; "by what string the puppet has been moved;" and he ceases to have power to move us. We cannot be moved, except by the force of reason, and the example of a disinterested life. It is the light of truth which must guide our steps: it is the warmth of goodness which must develop the latent good that is in us. How little those who are pleased to represent human nature as selfish — that even goodness is a selfishness — how little they understand the laws of mind, and how, for instance, the impulse of benevolence, the love of truth, or the sense of beauty, is wholly independent of selfishness! Of course, as a part of Nature, as a creature of necessity, as governed by law, Man is neither selfish nor unselfish, — neither good nor evil, — worthy nor unworthy; but simply nature, and what is possible to nature, and could not be otherwise.

Plato says that "Nature is nothing but an

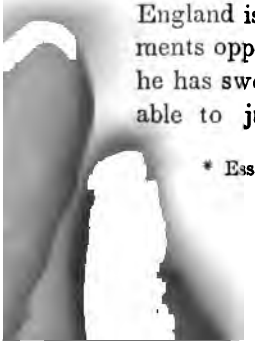
enigmatic poesy:" Montaigne says that philosophy is "only sophistical poetry:" and with some truth in regard to the philosophy then existing, and before Bacon's time. However this be, it seems to me that our nature is essentially romantic; that from childhood to old age, we are exhibiting the spirit of romance, in one form or other; but the highest truth exhibiting the highest poetry and the noblest romance. We are all heroes and worshippers of heroes. Every period of life has its poetry, its hopes and fears, — its castle buildings in the air, — its ideal and its idols. We are all lovers and poets. The world too is full of insane doctrines and customs, fashioned in our ignorance; and each thinks he can see the insanity of his neighbor, but does not see his own. Men strive beyond the power and very nature of the understanding, and repose upon the incongruities of a disturbed dream: but "the subtilty of Nature is far beyond that of the sense, or of the understanding." Even the finer sense of the *clairvoyant* cannot reach beyond phenomena; and if he could perceive the whole process of his prophecies, it would not dip one line's breadth beyond this. Men are forever running after some will-o'-the-wisp or other, — seeking after gold or power, — luxury or pure spirituality; — fame over the wide world, or that strange phantom, posthumous fame. When I was a child, and I wandered into the woods after butterflies and birds' eggs, what a romance it was! My heart beats now to think of the wonder, the ecstasy and romance of

those days; and when I believed in spirits and hobgoblins, — in Jack the Giant Killer; and afterwards in Robinson Crusoe and his man Friday, and in Don Quixote. O! what delightful romance it all was! — the impression of those books! and then came the greatest romance of all; — the romance of the Bible and a religion. A strange tale that to relate; — how the impressions came and grew; how they influenced me, and how they passed away. And then the strange feeling, — to seem to be walking wide awake through the world while in a dream, — men pressing after one wild delusion or another, as if drawn by enchantment; — and each opposed to each, and nation opposed to nation, — all wandering away, as in "a mighty maze without a plan." It is only when we begin to interpret these dreams by a knowledge of causes, and of the laws and conditions of Mind, that we seem to be again at ease, and in sympathy with our fellows, and perceive our true position and relations, and the necessity of all that exists in its time and in its place. When people say that there is no longer any romance in the world, it is because they love romance, and their heart is full of it. The lover, the mother, the grandmother, how romantic they all are! The speculations of trade, even the mind of the poor man who gathers watercresses, and carries them from door to door along the street, has its romance. The warrior, the sportsman, is carried away by enthusiasm into danger, and delights in adventure. Look into the libraries, and theatres,

and ball-rooms, and you find romance the ruling passion. And what is religion but another feature of romance, with its wonders upon wonders, — its hopes, its terrors, its fictions! Baron Munchausen is a tame affair to it. And then to become one of the elect, to win salvation, and an enchanted life beyond the grave; — to convert others, and win salvation for them; to be carried into the seventh heaven, — is it not the very ecstasy of romance? And to believe that it is all true; that the prophecies, the miracles, the morals, all prove it to be true; the Father, the Son, the Holy Ghost, the Virgin Mother, — what personages these are! Sweep away these ideas, and clear the ground; — how sad it seems! how blank the space where they were! It is hard for reason and for history to struggle against such romance as this; to throw off the glorious promises, and awake to common life. But every change has its immediate evil. We live, not for the past, but for the future; and wake men must, however painful it be. We must speak out the truth that is within us, even though we shall grievously offend our mother or our sister, or our dearest friend; and Truth shall be to us as a mother, a sister, and a friend. A man is loved for his virtue so long as his virtue gives no offence to the prejudices, vanities, or vices of others. The reformer must disturb the opinions of many; and he is as a robber, and breaks into men's habits, and robs them of the opinions which may have been their stay, their character, their wealth, child and idol. How pitiful to observe

the miser when he is losing his hoard; the proud when they fall; the lover who has just lost his mistress! It were almost better that such men had never been born. And how terrible for a man to lose his God, and all his hope of heaven! But fortunately the waking is generally very gradual, and from stage to stage. Those who are in the delightful condition of mesmeric sleep pray you to let them sleep on, and forever.

There are many who have a half knowledge that their religion is but a waking dream, yet beg you will not disturb them. The miser would not have you wake him to a true sense of the value of his gold. To throw down his glittering idol would appear to him a worse evil than to take his life; for it would seem as if it would deprive him at once of all hope and joy, and leave him utterly desolate. How terrible is the account Charles Lamb gives of himself,* — how he had become a drunkard, and was forced to return to his liquor! I believe few men are aware of what abject slaves they are to custom and to prejudice, so that "be it the Obi or the worship of images, or any other absurdity, when it is once introduced, an artful or an enlightened statesman may prolong it for centuries." A beneficed clergyman of the Church of England is no more able to judge fairly of arguments opposed to those thirty-nine articles of faith he has sworn to maintain, than is a Mohammedan able to judge correctly of the arguments of a



* Essays of Elia. "Confessions of a Drunkard."

Christian. Men are much the same in all professions. When I speak of the clergyman or the physician, I speak not of any individual or class of men, but of human nature under particular influences. "The wisdom of the law-maker is one," says Bacon, "and of a lawyer another." Few men are wholly honest: and but few again of these honest men are capable of suspending their judgment, but, when their prejudices are concerned, "have ears more deaf than adders to the voice of any true decision." Those who have cut themselves free from all inveterate habits and the world's ties, may still have their prejudices: but they are bound only by threads instead of by cables. Their circle is widened, their liberty the greater, and their judgment free. Men cannot help themselves. How can a man suspend his judgment on the wayside, when he is already thrust into a prison, and is taught to believe this prison to be a beautiful palace? He no more desires freedom, or can conceive a better state of things, or a higher truth, than the poor women you describe in a harem. Rattling their own chains the while, it is odd to see how men compassionate others* whom they see to be in bondage. A madman, who thinks himself made of glass, sees clearly enough the folly of one who declares himself Jesus Christ. But the folly which exists about freedom of will prevents men from acknowledging the entireness of this bondage, or from being startled at their own position. When

* Appendix W.

we recognize the helplessness and dependence of men under various conditions of life, and habits of mind, we shall learn to sympathize with all, to bear with all, and deeply commiserate those who are disturbed, and awaking from a dream. If happiness be the end and aim of life, as some think, it seems to me that ecstasy is the highest state of enjoyment we are capable of; and had we been designed, and our happiness considered, I think we should have been left to the joys of ecstasy forever, and each individual multiplied fifty million times, and to infinity. This is not nonsense. Either the possibility or the benevolence must be limited, if happiness be not complete, continuous, and infinite.

But these are speculations for poets and the divines. The philosopher has only to do with things as they are, — with second causes. He knows no final cause, nor the nature of that cause condition fundamental to phenomena. Men take up knowledge by fragments. There are few whose circle is complete; so that it seems as if society was composed of fragments of men. A man does some noble thing in one direction, and delights us; but we are painfully impressed with his shortcoming in some other department. It is the entireness, the compass of the circle, the universality, that is the greatness of Bacon. His greatness is more in the matter even than in the method. He urged the importance of phrenology, or a physiological account of the mind. He fully recognized the

importance of those matters which come under the term Mesmerism. He suggested the homœopathic character of medicine. He recognized the principle urged by the author of "Vestiges of Creation," &c. The highest object of a philosopher should be universality, and to attain to that state in which we may appreciate and enjoy all things; recognizing the true value and relations of every character, condition, and circumstance; our knowledge being so full, and our enjoyments so high, that we regret nothing. A truly enlightened and noble mind would not be subject to grief.

But our religious systems have done their part, for good and for evil. They are now lumber, blocking up the path of knowledge; that knowledge which must push them all out of the way. A selfish theologian is not for this age. His theology prevents the admission of higher truths, and the development of man's nobler nature. Strange as it may appear, and impossible as it may seem to so many, the Christian religion is, in fact, and will soon be generally, recognized as no better than an old wife's fable. Those who make the Bible an oracle tell us that the earth was created 4000 years before Christ. Science declares that the piece of rock over which the waters of Niagara fall has taken at least 30,000 years to wear away. I should think Lyell a better authority than Moses on such a subject. That man is of the dust, and to the dust returns, is true; and the dust itself may return to what it was before it was dust: but that the

earth is cursed, and that labor is an evil, is not true. And what has become of Eden, and the tree of life preserved by the Cherubim at the eastern gate, and by the flaming sword which turned every way? And it will one day be asked what has become of Christianity and Mohammedanism, and Judaism, and Buddhism, and Fohism. The Bible will be a curious and charming book for those days, when men will be burning all rubbish of theologies which fills our libraries.

But here I am running on like an old gossip, when I simply wished to say, that to believe in a cause of the phenomena which we call Nature, and which constitutes the thinking man, seems essential to all reasoning beings. I am far from being an Atheist, as resting on second causes. As well might we, resting on the earth, deny that there is any depth beneath, or, living in time deny eternity. I do not say, therefore, there is no God; but that it is extravagant and irreverent to imagine that cause a Person. All we know is phenomena: and that the fundamental cause is wholly beyond our conception. In this I do not suspend my judgment: but rather assert plainly that of the motive power or principle of things we know absolutely nothing, and can know nothing: and that no form of words could convey any knowledge of it: and that no form of thought could imagine that which is wholly aside of Nature, (as Nature is to us,) and of the nature of the mind, and, as it were, behind the understanding. A "cause of causes" is an unfathomable mystery.

Phenomena necessarily have a certain form and order which we term Law. The most fundamental and general law is what Bacon terms Forms. I cannot believe in a manufacturing God as implied in the idea of a Creator, and a creation; nor can I believe in any beginning or end to the operations of Nature. The cause in nature or of nature is eternal and immutable. The earth and stars may pass away into other forms; but the law is eternal. Man, animals, plants, stones, are consequently in nature. The mind of Man, the instincts of animals, the sympathies (so to speak) of plants, and the properties of stones, are results of material development; that development itself being a result of the properties of matter, and the inherent cause or principle which is the basis of matter. If to have this conception of things is to be an Atheist, then am I an Atheist. If to renounce all idolatry, and to repose upon the deep and solemn conviction of an eternal and necessary cause, — such a Cause as that, with our faculties, we could not know, or, as it is expressed, "could not see and live;" — if this be atheism or materialism, — be it so. I care not about terms. I hold that there never has been, or can be, any miracle, or interruption of the laws of nature: "for certain it is," says Bacon,* "that God worketh nothing in nature but by second causes: and if they would have it otherwise believed, it is mere imposture, as it were in favor towards God, and nothing else but to offer to the

* Advancement of Learning, Book I.

author of truth the unclean sacrifice of a lie." Spinoza was not an Atheist, but rather what he has been called, — "a god-intoxicated man."

There is a vast number of superior minds which clearly see that all religions founded upon supposed revelations exhibit a low morality, and are unsupported by fact or history, but have not yet cleared themselves of self-delusion. They want more support and companionship than they find in society, owing to this undeveloped nature and ignorance; and they imagine an ideal, and take the want for a proof of this ideal being real. Again, they have an instinct of life, and consider this a proof of a future existence, and say, "Plato, thou reasonest well; else whence this pleasing hope, this fond desire, — this longing after immortality." And thirdly, they feel themselves in a measure free, and have been accustomed to the untrue and immoral doctrine of moral responsibility; and consider this sense of freedom and responsibility proof against mind being subject to law. In the same way they might say, being accustomed to wars, therefore war is right; that their great ancestors painted their skins and ate one another; and therefore to paint our skins and eat one another is right; that we have a sense that the sun goes round the earth, and therefore Galileo was wrong. When our feelings guide reason, instead of reason searching into the cause of our feelings, thus it has been. — There is a rivalry going on now between the insanity doctors and the judges. The doctor says, by the laws of

mind, this man is not responsible; but the judge insists on opposing the laws of the land to the laws of nature, and declares the man a criminal. The newspapers take up the matter, and write about the shocking doctrine of a man not being able to resist an impulse; for newspapers but echo the opinions, prejudices, and ignorance of the world, or of a party. So the confusion goes on; and the most absurd contradictions and shifts occur in the courts of law; and the question remains a difficulty, and as unsettled as ever. The question still is urged, what is the limit of Man's responsibility? You may as well try to ascertain the limits of time, and where eternity begins. The folly of all this is, that men judge by their feelings, and not by their reason and the fact: and again, from their want of faith in truth; for they will say, "suppose this thing to be true, it is not wise to say so:" which is the presumption of human wisdom. A wise churchman hath said, "Whenever I perceive any glimmering of truth before me, I readily pursue, and endeavor to trace it to its source, without any reserve or caution of pushing the discovery too far, or opening too fresh a glare of it to the public."

Until the philosophy of human nature be admitted among the sciences, and laws and material conditions of mind understood, it seems to me that we are little removed from savages, and are still living in the dark ages, — romancing rather than using our "gift of reason." All that a judge and jury have to ascertain is how a man has behaved: but it remains

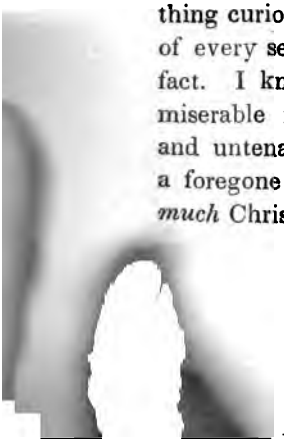
for wiser men than judges and juries at present are to say what treatment the moral patient requires; the undergoing which treatment will be the best check upon other inferior natures. We must remove the gallows, and no more use the rod; for these are not instruments of reform and civilization, but the instruments of barbarism* and the cause of brutality. Hell drives men to despair and to madness: the gallows ripens crime, and brutalizes and degrades a nation. How men can repeat the Lord's Prayer, and hang a man in the same breath, is astonishing, and exhibits the utter depravity of a Christian Legislation.

XXI.

THEOLOGY AND SCIENCE.

H. M. TO H. G. A.

AH! how true it is that Christianity has not, as you say, Christianized the world! There is something curious in the spectacle of the embarrassment of every sect of Christians in accounting for this fact. I know no subject on which there is more miserable floundering among incompatible views and untenable assertions. From those who, with a foregone conclusion, set about estimating *how much* Christianity has done for the world, to those



* Appendix X.

who give the matter up, and declare the delay to be a mystery of Providence, I find none with whom I can for a moment agree. To me, the wonder would be if it had Christianized the world. Its unfitness for saving the race, — for a universal reception by mankind, — seems to be shown clearly enough by the rise of Mohammedanism, and by the spread of that faith so far beyond the extent that Christianity ever attained as to include, in our day, a fifth part of the whole human race. That religion, imperfect as we see it to be, met needs and gratified faculties, among certain races of men, which Christianity wholly neglected. We are not of the races whose needs could be met by Mohammedanism: nor are we supplied, even on the most superficial view, by what Christianity offers us. As the omission of a provision for the antagonistic at once with the fatalistic faculties of men made Mohammedanism necessary, so the neglect, amounting to discountenance, by Christ, of the domestic passions and affections, nullifies its operation with us. After all the straining of divines to make the most of the Cana marriage, and of all incidental mention of any of the family relations of the disciples, there remains an unquestionable vacancy in regard to the passions and affections which are of the most importance in our life. It is not necessary that there should have been either teaching or sentiment in regard to the domestic institutions which are still of high importance among us: such as the conjugal and parental, as at present existing; because these, and

all groupings into households by the rule of marriage and blood relationship, may be easily conceived to be a matter of rule and arrangement, and therefore of limited duration; but the passions and affections of which these arrangements are the temporary form, seem not to be recognized by Christianity, — or, if at all, not in any proportion to their place among our faculties. — Yet more striking, perhaps, is the ignoring of the faculties, and their action, which are concerned in the pursuit of science and speculative truth. But there is no need to dwell on the particular omissions, while the fact is before us that Christianity has not Christianized the world, nor has the slightest prospect at present of doing so, — failing even to produce the remotest likeness of itself where it is most loved and honorod. From some once Christian nations it has avowedly died out: and among us, and in America, where it is supposed to be held in its highest purity, it fails to make men less worldly, more sincere, more courageous, or more kindly, than they are elsewhere. At home, we have bishops living in palaces, while hundreds and thousands of the people are neither taught nor duly fed: and in America, we see the clergy, and prayerful merchants and professional men, taking the aristocratic and oppressive side on the slavery question, — rushing to conquest, grasping at wealth, and indulging in a conceit and boasting as little compatible with the spirit of the Gospel as the march of a caravan to Mecca, or the fetish rites of the savage on the Niger

or the Ganges. — And we have quite as much, happily, of the breaking out of the higher as of the lower impulses of men, in opposition to Christianity, or independence of it. We have "nature bursting through theology" in an upward, as well as a downward direction. What an insult it is to our best moral faculties to hold over us the promises and threats of heaven and hell, as if there were nothing in us higher* than selfish hope and fear! Did you ever meet with those anecdotes of Wilberforce and Clarkson, which, put together, make one of the most instructive stories I know? They give us the characters of the two friends, and offer us very much more. — Some one was one day praising Wilberforce to his face for his toils and sacrifices on behalf of the slave. "Oh! you know I must," said the good man, who was quite unconscious how much better he was than the doctrine he professed. "You know I must do this work, for the sake of my salvation. I must save my immortal soul." At another time and place, a pious friend admonished Clarkson to attend to his religious duties, inquiring whether he had not been neglecting the safety of his immortal soul. "My soul!" said the simple old man, as he sat rubbing his knees, with his earnest, business-like look; "why, I don't know. I have been so busy about these poor negroes, that I don't think I have thought at all about my own soul." Who would not have been the Clarkson here? though we all know that Wilberforce was far above

* Appendix Y.

being benevolent from selfishness, however he thought it his duty to persuade himself that such were his reasons.

If it is argued that such views of Christianity as he held were corrupt, — that the primitive Christianity did not promise and threaten the popular heaven and hell, I agree to the statement: but then the fact comes out clearer than ever, that, instead of saving men, Christianity has become corrupt, and tends to degrade them: — a liability which could not occur to a saving revelation. If it is now wanting in purity, and was always wanting in universality, it seems perverse to claim for it the dignity of a revelation sent to save the human race.

And then comes the obvious question which must always recur in regard to any revelation. Is that which is said to be revealed within the compass of the human faculties, or is it not? If not, we have a mere jingle of words. If the matter cannot be received and comprehended, it is no revelation. If, on the other hand, it can be compassed by the human faculties, it could, of course, be attained by them through their natural action. The common escape from this question is by the assertion that revelation anticipates Man's natural knowledge. To say nothing of the bareness of the assumption here, it is clear that when the knowledge is arrived at in natural course, the revelation expires. It is proved an instrument of temporary use, and falls to pieces when done with; an end far different

from that which is supposed to await Christianity.

But how very different from this is in truth the direction of our faculties! How very far is the knowledge they give us from confirming the essential doctrines of any religion declared to be revealed! The history of the rainbow, as instanced in one of your letters, is a good epitome of the history of the connection of the universe with the mind of Man from the beginning. Every thing that moved, — every thing that was not permanent and stationary, — was at first a sign and a revelation, in the absence of science. From the moment when science was conceived of, the exorcism began; and it has been going on ever since. Spirits have been driven out wherever she has turned her light, wherever she has fixed her gaze, wherever her firm and gentle voice has bidden them come forth, and trouble the timid no more. There is much yet to do; but enough is done to show what must be the fate of all remaining dreams and delusions. The fresh dawn of science has for some time been brightening upon the nightmare period of theology; and the full and perfect day is the surest prophecy afloat in the universe. The great step of all is achieved, — the learning what knowledge is. Even theologians have got so far as to struggle to show that science and revelation can be made to agree. In this, we know, they will not succeed; but it is a testimony to the strength and consideration which science has

attained. While to those who are outside of the theological haze, the prospect of the issue appears as clear as the horizon at noonday, it is a strange spectacle to them to witness the tumult caused by Popish aggression, and other quarrels within the theological enclosure, at the same time that a power greater than that of Pope or Prerogative, of Councils or Churches, is steadily advancing to the overthrow of them all. It should, however, be called rather a renovation than an overthow : for Science can abolish nothing but what is unreal ; and then, only in order to substantiate what is real. Her office is to take out the vital principle from forms, once beautiful, when they begin to grow hideous with age, and to transfuse it into new forms of beauty which we may love without fear and without disgust. She comes to relieve us from our hag-ridden state, and to bring about us forms as fresh as the morning, and as beautiful as the spring. When we see the Pope and the Church about to fly off, — two old witches on broomsticks, — it is an odd sight to see their wrangling before they start ; and but for the genuine affections and serious moral associations of so many persons that are involved in the struggle, it would be purely ludicrous.

I have run on till I may have reminded you, to my own disadvantage, of Bacon's warning not to think about theology when pursuing science, or science when pursuing theology. But I believe it has been natural to us both, and even inevitable,

to contemplate theology to the extent that we have done, because it is at present an impediment in the way of science. We do not turn aside after it, I think; but finding it in our way, we discuss it, and pass on. Will you now pass on to the questions I asked you? — about the connection between light and sight; and about how you conceive our consciousness of identity to run through all our life, while the material of life is incessantly changing; and also about how you conceive we may set to work to imagine the manner of the fact that we know to be fact, — that dying people impress others at a distance with a knowledge, by sensation, that the process of death is taking place?

XXII.

CENTRAL LAW AND PERVASIVE UNITY. — LIGHT. — SENSE OF IDENTITY. — GHOST-SEEING. — UNREVEALED HUMAN RELATIONS.

H. G. A. TO H. M.

How natural it was for men to use false similes! for instance, to liken to the making of a loaf of bread the material existence and growth of the corn out of which the bread was made. We are so apt to forget that man creates nothing; that to invent or make, is but to place materials in juxtaposition; and that Nature does all the rest! All the effects

of Nature, and all the doings of Man, who is part of Nature, are the consequents of the interaction of matter, of the influence of body on body. Science has brought us to this; and we must not let the truth escape us. "The mind of Man," says Bacon, "is like an enchanted glass; full of superstition and imposture, if it be not delivered and reduced." — "Nay,* it is not credible, till it be opened, what a number of fictions and fancies the similitude of human action and arts, together with making of Man *communis mensura*, have brought into natural philosophy, not much better than the heresy of the anthropomorphites, bred in the cells of gross and solitary monks; and the opinions of Epicurus, answerable to the same in heathenism, who supposed the gods to be in human shape. And therefore, Velleius, the Epicurean, needed not to have asked why God should have adorned the heaven with stars, as if he had been an Ædilis; one that should have set forth some magnificent shows or plays. For if that great Workmaster had been of a human disposition, he would have cast the stars into some pleasant and beautiful works and orders, like the frets in roofs of houses; whereas one can scarce find a posture in square, or triangle, or straight line, among such an infinite number; so differing a harmony there is between the spirit of Man, and the spirit of Nature."

In the infancy of knowledge, men look upon the growth of a tree and the birth of an animal as

* Advancement of Learning. Idols of the Mind.

miraculous. The bursting forth of the foliage in Spring is as if the earth had been touched by the wand of a magician: as if a great magician had said, "Let there be new growth and beauty over the earth;" and growth and beauty were. The sunset was the showing forth of glory, and the stimulus to praise and worship. The rainbow and the eclipse are as signs in the heavens. The sun is made to shine for man: the moon and the myriad stars are lights set up to shine for man, — the lamp-lighting for the night's use. It was yet to be known that the sun which was to rule the day, was the cause of the day. Day and night, it was said, were created on the first day, and the sun, moon, and stars on the fourth day. It was not known that the sun, and the earth, and moon, are but atoms in the universe. The thunder was the voice of the Great Spirit; the lightning, the thunderbolt, was the instrument of his vengeance. The Great Spirit was busy in the battle-field, and the plague was the effect of his wrath. Misfortunes and good fortune were all the doings of the Great Spirit. — Under such ideas, men blindly submitted to an inscrutable destiny, and believed in the most fatal of fatalisms. Or, if they exerted themselves, it was in prayer and beseechings; in offerings, to propitiate their offended God. Science is gradually leading through these notions of the cave into open daylight, by showing the undeviating laws of nature: and thus men are gradually drawn out of the church into the lecture-room. The divine will become

the philosopher; and the philosopher the divine. Knowledge is power, and rules the mind, as well as enables the mind to rule. In a transition state, men may reject innovation, and storm, and feel deeply shocked, and most indignant at the new doctrine; while Science, like the needle, guides them through the darkness, and shows the cause of the storm, and how the storm of the mind is related to the storm in the clouds; how they are the same footprints of Nature on different surfaces or spheres.

From a knowledge of particular laws, we gain a notion of universal Law: and from this occurs the idea of a Unity in Nature, just as from the finite we suppose the infinite, and universality. I remember when a youth, sitting on the marble rocks of Devonshire, to rest, after investigating the nature of the marbles and the plants of the district. I had observed that certain dark veins in the marble must have been cracks, filled up by vegetable deposits, which afterwards became stone: and then I thought of the diamond which I had been told was convertible into charcoal: and I picked up a blade of grass and asked myself, "What was this a month ago? And those sheep, — what were they a few months ago? And myself, — what was I a few years back? And will not the grass grow fresh upon my grave when I am dead? And what was the substance of the globe before it took the form of chalk and clay and silex, — vegetables and thinking substances?" And I became impressed

with the fact that Nature is one, and that all things are but varieties of the same material: and I was elated with the idea, which seemed to me to be of vast consequence; and I determined to collect specimens and facts to illustrate the notion. I was not then aware that the notion was as old as the hills; that the ancients, with less facts to support them, had thought the same; and that the alchemists, in the same belief, were seeking how to convert one substance into another.

Science is now affording proof of what was before only conjecture; though a conjecture having the appearance of a necessary consequence or fact. Liebig says,* "Isomorphism, or the quality of form of many chemical compounds having a different composition, tends to prove that matter consists of atoms, the mere arrangement of which produces *all* the properties of bodies. But when we find that *a different arrangement* of the *same* elements gives rise to various physical and chemical properties, and *a similar arrangement* of *different* elements produces properties very much the same, may we not inquire whether some of those bodies which we regard as elements, may not be merely modifications of the same substance, whether they are not the same matter in different states of arrangement?" &c. Thus we draw the circle of facts closer and closer† to the centre, which is Unity. In this centre the Mind holds its position, and is enabled to take in the whole range of facts. Not

* Chemical Letters, p. 54. † Appendix Z.

as before, to be whirling round and round in a little eddy of fact; but floating down the wide stream of knowledge. Bacon was very near the centre of the circle: and consequently, how few have understood him! But, while we dilate the sight in the sense of the unity of Nature, and the relations of the sciences, we must not forget to contract the sight to every particular and circumstance; that nothing may be omitted, and Nature may be searched for the truth which is said to lie at the very bottom of the well: for that which is most potent, and has most the character of universality, is most hid, and least palpable to the ordinary sense, indolently applied. — Bacon compared knowledge to a pyramid: physical facts nearest the base, and gradually narrowing and rising to metaphysics: and again, to a tree, in which there is no division; but all the branches form a whole, and unite in one stem. And this is the true cosmical view of Nature: the sense of variety in unity, and unity in variety: the whole in the parts, and the parts in the whole; all of one growth and origin, and consequently presenting those true correspondences, exhibiting the same law under various aspects, and all evolved, and fitting together as closely as the seal to the print, each symbolical of all, and all of each.

As it is with the conditions of matter, so it is with the properties of matter. It is now recognized by Faraday and others, that all the properties of matter are but various conditions of the same: that

light, heat, electricity, magnetism, chemical affinity, &c., are convertible, or evolved one by the other. This wondrous fact is now exhibited, daily, at the Polytechnic Institution. Decompose one grain of water, and the power which held the particles of gas together in the form of water evolves into as much electricity as we have exhibited in an ordinary thunder-storm. Electricity is evolved in a most brilliant light which lives under water, the decomposing or consuming substance being at a distance; and the influence or power passes unobserved along the wire, and is manifested at the end. Thus flame is not, as was supposed, a heated substance in the ordinary sense. Instead of light, intense heat may be made to occur or magnetism. The lecturer suggests the question, — What is electricity, light, heat, &c.? The cause, he says, is not yet discovered: but he would more properly have said that the cause never could be discovered: that we know only the form of matter, and not its cause. So, likewise, we know only the form or character of the phenomena of matter, and the order of its development. The cause is material, that is, inherent in what we call substance. We know no more; nor can we know more. All that we can know is the form of the conditions, and the form of the effects — the laws. More we neither know nor can know. It is the real and fundamental law and conditions of the fact that we want to know: and this we may know. Electricity, light, heat, are not fluids, but forms of

action, — the same as common motion or force. By friction, new chemical powers are given to the homœopathic medicines. Squeeze a pear, and it becomes sweet. By friction, light, heat, electricity, or magnetism is evolved. And what are the instinct of animals and the mind of man but a result of chemical action or material process? What is mind but an evolved condition or form of the powers of nature, like light, heat, magnetism? — a form of the phenomena of the fundamental power which is acting throughout nature, and may, perhaps, be said to constitute nature. Mind, that is, thought, and sensation, which we term mind, pass away like light, and influence things without. Mind is but a transient condition: and memory but acquired forms. Light evolves thought; and thought again evolves light. Mind evolves motion in the limbs; and motion again evolves thought. Mind acts on the body as light and heat act on the material from which they are evolved, (a lamp or candle, for instance,) and help the evolution of fresh heat and light. Disturb the chemical action of the body through the stomach or lungs, or by electricity, and you disturb or paralyze the mind's action; or the disturbed mental action will derange the action of the body. In the one case, you may have idiocy or insanity; in the other, a liver complaint.

When I say the mind is a function of brain, I mean no more than when I say that the brilliant electric light I see under water is a result or prop-

erty of certain materials under particular conditions. The light and the mind are equally phenomena, and the cause or nature of both is equally obscure: and both are phenomena evolved or existing during the consumption or change going on in matter. But light, magnetism, mind, &c., though evolved by the action of matter, are conveyed by solid bodies, and through space, to other bodies at a distance. Thoughts pass from one brain, and become consciousness in another brain. This we call sympathy of minds, or thought-reading. Now the question occurs, What is the medium through or by which power of any form is conveyed from one body to another? We say, that electricity is conveyed by a wire, and sound by the air: but these are very shallow notions. We have yet to learn whether there be a universal medium, or different media interfused for each distinct character of power, or cardinal motion; and if these phenomena of light, electricity, mind, &c., are actions from solid matter to this medium, or if there be a spirit contained and close about all bodies; and particularly from animals, and man's brain, and the action first taking place in this; or if all effects are from an agitation, as it were, of the universal medium or media pervading all things, and all space; — if bodies, animate or inanimate, have a particular evolved or eliminated spirit condition, which is acted upon by the body on one side, and by impressions through the universal medium condition on the other.

But body does not act directly on body, we know, because bodies do not touch: and, therefore, it is clear, that whatever the spiritual condition or conditions be, all actions are by and through such spirit conditions. Therefore, in fact, solid body does not act on body in any case, nor spirit on body: but spirit acts on or in spirit, and through spirit. Perhaps, in the end, it may be seen that some of those that are called Materialists are the most spiritual in their notions; and those that pride themselves on their spiritualism, are, in reality, the Materialists; who talk of gross materialism, and, at the same time evoke their God material, as he sits on his throne; who talk disparagingly of human affections, and human wisdom, and poor human nature, and, at the same time, fashion their God in their own likeness. They scoff at those who may be too spiritual to bend to their idolatry, or yield to the ruinous influence of custom and formalism. To see how men are dead while they yet live, and how they are wise in their own conceit, and pure in their own wisdom, — is it not enough to make one mourn, and almost despair of progress? and of that

> "Philosophy which is
> Not harsh and crabbed as dull fools suppose,
> But musical as is Apollo's lute"?

And thousands have despaired, and been content to listen to the sweet strains of an indolent philosophy, because they have overlooked causes, or mistaken the plan of Nature, and the universal application of inductive science.

I wish that I could give you a satisfactory reply to your questions respecting the nature of Light. I believe that the different theories of undulations and vibrations, and darting corpuscules, &c., must all dissolve away before the simple facts of the case; just as ghosts and demons, and spiritual influences, and retributive judgments, &c., vanish before the light which we now bring upon mental science. It seems certain that two things cannot occupy the same space at the same time, unless we suppose with Kant, that Space is a mere fiction. It seems, also, that two similar actions or conditions, — two similar diseases, for instance, cannot exist in action in the same body at the same time, and that we must have different organs for the different mental powers, and for conveying sensation and motion; and, indeed, for each distinct function of our nature. The intellect is working in one part, and the affections in another; the consciousness and will in a third; benevolence in a fourth; and so on; while a train of impressions to the brain cannot run along the same rail which is, at the same time, conveying a baggage-train of muscular force outwards from the brain.

These seem to be recognized facts; and yet, with regard to impressions from object to object in those influences which have been called "immaterial virtues," we come to a fact which seems to be wholly at variance with the rule. For instance, I hold up a pin's point; and the influence from this point fills the whole space of the room, bearing upon

every point of matter on the objects and walls around which face it;—and beyond this:—but so much is palpable. Yet, at the same time, and in the same space, and in direct lines, come impressions from all this surface around to the pin point. And if the pin point was multiplied by millions, and the surface around extended, every point of the space would contain a direct impression from every point of surface. In fact, the whole surface and the whole space would contain impressions from every point, and each point the impression of the whole: and these impressions (for the most part, at least) have to pass in opposite directions in the same lines in space. And this would be the case, not only in regard to light, but to heat, sound, magnetism, and every shade of color: indeed, of all the characters of all the influences present,—to say nothing of the secondary or diffused effects.

To every point that the sun shines upon comes a direct ray or line of impression from every point of the surface of the sun which is presented towards us. How impressions coming in direct lines from point to point widen as the space extends is another difficulty, which I do not think has yet been solved. All seem to consider it necessary that there should be an ether, or medium of some sort, pervading space, and communicating impressions from body to body: and certainly a material medium between bodies does seem essential, unless you assume immateriality. But not matter and nothing are terms for the same nonentity. When we are in

want of a something, we cannot fall back upon nothing. Can we for a moment suppose, for instance, light to be an action without body moving through empty space? No, we require a substance to convey a motion or energy from one body to another. But what kind of substance can this ether be? for, if the particles touch, it would seem it must be a solid: and if they do not touch, what conveys the action from particle to particle? or, are there no particles? is there no embodiment at all? Thus we shall have to come to the fact, humbling to some, that that which is beyond the senses is beyond the understanding. — Ask the wisest man "what is mind?" or "instinct?" or "the principle of the form of things?" "What is light? What is matter? What is power, or space, or time?" And he will tell you that his wisdom in this is the wisdom of Socrates, in perceiving that he knows nothing. Or he will reply that mind is mind, light is light, time is time, &c.: that knowledge consists in the perception of things as they are to us, and in recognizing the relations of things in the order of nature: and that all inquiries as to what things really are, are fruitless. The higher laws, those more fundamental, universal, and operative, will be discovered only by acute inductive reasoning upon accumulated experience of the obscurer workings of Nature. No one can grasp the infinite, — in space, in time, or in causation. — Of the fundamental principle of things we know nothing. We are just like one startled from sleep in the midst

of the night, glancing round by the light of a taper: — the beginning and the end, the past and the future, are all wonder and darkness: nor can we know any thing of the subtle actions of Nature beyond what our senses give us, of which our reason is able to judge as by a second sight. Many, upon such considerations, have left experience altogether, and rushed into metaphysics and scepticism, or think themselves wiser and more secure under some religious faith: because men will not be content to rest on what they know, and what it is possible for them to know: but they will follow after any phantom that is presented to them, and leave Nature, which will disclose to them far more wonderful things than they can imagine.

I think that much confusion is caused by endeavoring to understand remote things by those that are near, — the cause by the result, — the imponderable by the ponderable, &c.: that which is insensible by that which is sensible; the whole by a part; the universal by a particular mode or form; the future by the present, &c.; instead of observing the order of things, and judging accordingly. That which is too subtle for the sense must be judged of by the circumstances, or by experiment. How could we infer the laws of the atmosphere or the winds from a heap of pebble-stones; or the laws of fluids from a rock of granite? How absurd then to liken the action of a supposed subtle ether, of inconceivable nature and rarity, to waves and vibrations! — No waves or vibrations can

explain the actions which result in mind; nor the action which is the cause of vibrations and waves; nor the infinite action going on in the universal medium. — We must begin our inquiries afresh: free from all scientific or theological hypotheses whatever, or be sure that our hypothesis does not warp the judgment on the facts as we find them.

In considering the question of media, and how that which we require to be in closer contact, if not absolute union, can be imperceptible to our senses, we may note that gold is more porous than less dense substances; that ice contains less matter in the same bulk than cold water: — musk seems to fill the space around continuously without losing weight: and the smallest portion of coloring matter will pervade a whole butt of water. Considering these instances, we shall not be oppressed by notions of infinite division, and the existence of subtle media: or that each distinct action, or cardinal motion, may have a distinct medium to itself, that there may be as many media as there are characters of action, each pervading each, and all existing together in a way too subtle for our sense and understanding. We must acknowledge that the nature of such media, and their action, are wholly incomprehensible. We might suppose particles moving, as in a row of billiard balls, — as when you strike the ball at one end, and the farthest one flies off, the intermediate balls remaining unmoved: or we may imagine elasticity, as in a fluid confined in a vessel, when a pressure on any

part is communicated with equal force through the whole mass. But these observations only approach the subject, and leave us still with the puzzle of a thousand influences, crossing from all directions, existing in the same point at the same time, and passing in opposite directions without interfering; with the puzzle, again, of a body capable of reflection and refraction, passing clear through crystal without apparent diminution: as electricity passes through a wire a thousand miles long or thick. Common air seems a very subtle and incomprehensible form of substance; but it is blocks of granite compared to the subtlety of this medium, which seems to be a totally distinct, but unknown, condition of matter. This medium, too, must be requisite even to convey action through air.

You see how little I can reply to your question, except by raising difficulties, and showing our ignorance: but, happily, the strangeness or the difficulty of one matter often throws light upon another. The principle of a whole being influenced or leavened by each part, and each part by the whole, will aid us in the explanation of matters otherwise incomprehensible: such as that a portion of the seed of a plant or animal under appropriate circumstances is developed into a similar plant or animal; and, where individual peculiarities are repeated, the peculiarity often continuing in a latent form, to be reproduced only in a third or fourth generation. — For the spontaneous generation of the higher animals and plants, the fitting

conditions do not seem now to exist on this globe. — Again, the fact that the various influences or appearances of a landscape, or of an object, become evolved in the mind at once, in the form of an individual or general idea, comes under the same class: and again, that somnambules should read the whole influence from a person, and even his entire history, from a touch, or from a bit of hair, or even from such an object as a piece of leather touched by the person; or from the influence hanging about another individual, who has been in company with, or otherwise influenced by, the person in question. — Here we find the principle of memory, and how it is that in such cases as that of the Swiss historian Zschokke * the history of a stranger is brought under review, just as if the memory of one person was transferred to another. — Here again we recognize a basis for palmistry and future seeing; — facts, of course, like all other facts, — medicine, for instance, — affording wide opportunity for imposition, assumption, and folly. — How marvellous is the influence of a homœopathic infinitesimal substance as an infection through the whole nervous system! and how complete is the influence of the system on the new matter which we take in to compensate for waste! How marvellous that the habits and memories which age effects are continually transferred to fresh matter! Men marvel at the contagious, subduing, infusing, or leavening power of mesmerism; as if we were

* Appendix A.

not continually emitting the force and condition of ourselves! The very throwing of a stone is the transmitting the power from the arm to the stone, for the hand does not absolutely touch the stone. All your thoughts and your whole condition, and those of thousands of others, may be lying latent in my constitution at this moment, if I had ability to recognize them, as the contagion of disease is carried about by one person, without his being conscious of it, and communicated to another, whom it destroys. And how wondrous those storms of vital force, or other (so to term it) electric condition, which produce cholera, scarlet fever, or the potato disease! And what are these diseases? Whence come they, and what are their laws? And why does not the influence affect all equally? And why is one particular species of plant or animal carried off at one time, and other species at another? Those who will not believe unless they have reason, and who object to mesmerism because it does not influence all equally, let them answer this. Men's minds are so beset with "gross materialism," with their concrete and mechanical notions, that they shrink from the obscure, imponderable agents, and the study of vital action, and the real powers of Nature, as if it were "the night side of Nature," and the sphere of ghosts. Nor will they stoop to consider the kind of evidence required, and the method adapted to a new inquiry. Matteucci, Reichenbach, and others, are now doing for us some good work in the right direction. — Reichen-

bach's experiments are most usefully made, and most important; but I do not agree with our friend Professor Gregory in supposing that they give any explanation of mesmeric action, beyond what the facts of mesmerism had shown before. We were familiar with the fact that sensitive patients could see flames and other light, and feel influence from people, and magnets, crystals, and other materials, not appreciable by the ordinary sense powers, before these German experiments. We knew that their influence did not exhibit the form of magnetism or electricity. Do not suppose that I am undervaluing the beautiful and varied experiments of Reichenbach. — Possibly objections may be raised in regard to some of the effects, on account of a mesmeric influence or contagion imparted to the objects used, or of an influence on the mind of the patient. I do not say it is so: but it seems to be likely. The value of such experiments will be greatly enhanced by a full recognition of such objections. The great point is, as Reichenbach strenuously insists, to have the experiments repeated under various circumstances, and by individuals of different temperaments. — I am sorry that Reichenbach has not appreciated the facts of Phrenology.

It is to be remarked that rays of light, emanating from one and the same source, but with a different length of path, destroy each other, — produce darkness. Light has the character of being diffused; and yet it passes in straight lines. How it is that we perceive the luminous object in the direction

that light comes to the eye, even when bent, as in reflection; and at the distance the light has travelled that we see an object in the place in which it is, is not understood; and whether we see into space when there is no object before us, — whether we do really see into space when looking at the sky, for instance, any more than we do when we seem to see into darkness on closing our eyes, is to me a question. Sound is heard as in the place from which it comes; and, as happens with light, it indicates direction, as well as distance. Why does it not sound all along the passage from the object to the brain? The condition of action in the object must be different from the influence sent forth; and it evolves in the spirit of the brain an action we term sound, which corresponds to the original action in the sounding body, somewhat in the same way as when a sounding body influences another body, with a corresponding action or sound. In the same way, light seems to put in action the light-condition of other bodies, and enables us to see them, as we hear the responding sounding body. Touch, pain in the muscular sense, &c., convey a knowledge of locality and space also. Sound influences the air and solid bodies; but it seems to me most absurd to suppose that sound is caused by the motion of air. It is no more so than electricity passing through a wire is caused by the moving wire, though air, as a solid body, may be as essential to the conveyance of sound, as the wire to the conveyance of the electricity. When a gun goes off, I

feel no motion of air against my face; and yet the mere sound has broken the window, and caused the framework to rattle. Is it not by the subtle spirit pervading all bodies and space that all power and action occur? — sound, electricity, heat, light, mind, &c. Is it not all the energy of nature acting by this spirit? Bacon thought that the spirit evolved from the body is the body of the mind; that, as the body is to this spirit, so is this spirit to mind. Newton could not get on without supposing a universal interstellar medium. Our senses do not perceive it; but the facts require it, and reason infers it. The brain does not think; nor does the bell ring; but the spirit does all. The ball does not move; but is moved by the energy let loose by the decomposing of the gunpowder. Such being the case, you will understand that the sense of sound would be a true impression and correspondence with the action of the body, or spirit-condition of the body without. That the mind sometimes hears sounds from an internal activity or stimulus, only shows a capacity to be impressed in a certain way, as it has been acted upon before. The impression of hearing corresponds with the action or condition heard. Seeing precisely corresponds with what we see. It is as the seal to the impression. As sounds correspond with colors, so much more does the subjective correspond with the objective. The chair is one thing, and what I see as the chair is another, no doubt: but the proportions and relations in the object and the subject are the same: —

as much so, and infinitely more so, than the likeness we take by the sun resembles the object. Seeing is an interaction of the subtle conditions of nature, an exact corresponding of the object and the subject. Electro-magnetism, acting on the direction of the polarized ray of light, produces modifications like chemical mixtures. By scratching the surface of a piece of metal, so as to have a given number of lines in a given space, we can cause the same substance to appear of any color we please. Heat will produce all the colors from the same substance. Color therefore seems only to represent a particular condition or texture.

Light and sound, out of the sense, of course are but forces or motions: and the whole universe is, in reality, absolute darkness and solemn universal silence. The subjective corresponds with what light indicates, rather than with light, which is but a medium or form of communication. If I am told that I have no right to infer the objective from the subjective, I reply, "Very well: then, you who object must believe only in your own mind, and that only in the impression that is then passing." Idealism forces itself to this position, where I am content to leave it, to meditate how the thought that is past may be a delusion of the present, and how the future may not come. The important thing for us is to ascertain relations and laws; not what things are, or how mind differs from matter. We must consider things as we find them. Light, sound, color, taste, smell, touch, indicate condition:

and those conditions, differences, or relations indicated are true. This is what we call knowledge; and it is equally important and efficient, whatever may be our opinions in regard to the subject and the object.

There is an electric character in Light; and influences are constantly existing from all bodies irrespective of the light condition; or the sense to receive a certain amount of force we term ordinary light or seeing. As all influences are but different conditions of the same, and may evolve each, it is no wonder that an electric condition may evolve the mental condition of sight, and produce seeing in the dark. By considering what I have said before in connection with this, *clairvoyance* does not seem quite so unintelligible, to the extent that ordinary sight is intelligible.

Möser's experiment of the influence of objects on metal plates in the dark is very instructive. However, I must not venture on the subject of the different characters of Light. The subject is too wide: but, in reply to your question, I may say here that the effect of the electric light being different from common light is shown by a wheel revolving with celerity sufficient to render its spokes invisible. When illuminated by a flash of lightning, it is seen for an instant with all its spokes distinct, as if it were in a state of absolute repose. Your not seeing the comet and the sea is a very interesting fact. I have experienced the same inability on some occasions myself, when the

mind seemed to lose its power and concentration, somewhat in the way that it loses a word and cannot recall it. I remember a lady whose mind is not very collected under excitements, at Ascot Races, looking anxiously to see the Emperor of Russia driven past. He drove past, a few yards from us. We had a capital sight of him; but this lady saw nothing. She might as well have been at home. If emotions so blind the sense, how much more do they obscure the understanding! When any interest or prejudice is stronger than the love of truth, truth will suffer. The blindness, both as regards the sense and the mind, often arises from our looking for something different from the fact. And again, we often invest an object with a form it has not, or evidence with conclusions foregone. How careful we should be to keep the mind steady and clear!

You wish to know how our consciousness of continued Identity is to be accounted for, whilst our whole frame (and every organ of the brain among the rest) is incessantly undergoing waste and renewal. The sense of Identity seems to follow as a consequence from the sense of Personality or Individuality. It is a fact of the Memory, presenting similitude, or sameness of impression. Memory is a recurrence of impressions. Habit is a form of memory. Fits are a form of habit, and often have relation to time. To identify myself as an Englishman is a habit of thought. In certain

states of the nerves a man may know or believe as a fact that which he no longer has a sense of, or can identify in feeling. The I which represents the individualism seems to arise from a faculty whose organ is situated near to the Conscious sense and the Will, and close beneath Self-esteem and Firmness. "I think; therefore I am," is a conclusion from the Conscious sense and the sense of Personality. The organ of Personality is a central organ, and its function a collective sense like the perceptive individuality. Love is this sense of being and personality blending with another existence; two in one. In cases of doubt or divided consciousness, this sense of identity loses its single form, and is usually accompanied by the loss of memory, — the memory of one of the lives or states. Mesmerized persons often speak of themselves as of another individual, and regard, again, this intuitive character as another person, and speak of it as "the voice," &c., telling them so and so. In some cases, the patient may be thrown into several conditions; and in each assume a new and separate identity. As there are different states of magnetism and of light, and as chemical affinity may become electricity, and electricity magnetism, so these brain states, or, as it were, spheres of action, have their changes, each state having an individuality, like a separate existence.

It would be difficult to identify one's self in another bodily form, as in a new mental form, even with the help of Memory. I can hardly identify

myself with my condition of childhood; nor in a calm moment feel myself to be the same as when under the influence of any passion. It is the same power which, in one state, is love or hate; in another, obstinacy; in another, generosity, or the sense of color, &c. I think we shall, in time, trace forms of mind, corresponding with those of light and sound, and material forms, &c. Cosmical inquiries must lead to this, and exhibit the true cardinal forms of nature, with general and fundamental laws, on which the whole depends. We must examine Nature as a whole, if we would discover the fundamental principles of Nature, and comprehend the analogical bearings of the whole, and why apparently remote things resemble each other. Then, indeed, shall we find that knowledge is power, and poetry, and delight; and be elevated into the noble position of manhood, passing out of all conventionalities into the solemn and glorious path of intelligence and pure reason. The intuitive faculty will then become as an instrument of light to the understanding.

You have heard of this new calculating man. I wonder what those who find it hard to admit any power beyond ordinary sense impressions and reason, make of such undeniable facts as these.

I think I have explained before, that the renewal of the matter of the brain is a gradual process, and that the new material takes the character of that to which it joins company; — in the same manner in the brain, of course, as in the liver or the lungs.

If I can influence another person to think as I think, or to imagine himself a candle, or a wild beast, or to acquire my condition of memory, it is easy to understand that new particles become immediately leavened by the old, and that no change would be perceptible. The new material would evolve wisdom or imbecility, or disease or age, as the case may be. Each organ seems to evolve or induce that spirit-condition which is the basis of its particular faculty: and thus, faculties blend as colors blend, and change with the conditions; or as sounds blend in a general harmony. Each sense faculty is adapted to receive the peculiar influence or impression to which it relates; but the instrumentality or intervention of the external sense does not seem always requisite. The internal faculties appear to be loosened from the sense, and to receive impressions direct from without; to be open to conditions to which the senses were not fitted. It does not seem to be any strain upon reason to suppose this. Few can give an account of the process by which they come at many of their conclusions; any more than the calculating boy Bidder could of the process by which he arrived at his conclusions. *Clairvoyance* or prophecy is no greater step from our ordinary condition than seeing would be to a blind person, who would say, "I could only take up Nature bit by bit before, and put these bits together, and then form but a very imperfect conception: but now I recognize all at once; the distant, as well as that which is

near." You set free the inner faculties, and open "the eye of the mind" to the outward influences of the grosser sense; and knowledge flows in unobstructed. You are as one who was blind, but can now see. The new sense and the old are equally intelligible, and both inexplicable. You cannot explain a process where there is none. The imperfect sense, the blind have a process to explain: but in clear-seeing there is no process but the fact.

I must now reply to your inquiries relating to dying persons.

Your question about the influence of dying persons on those at a distance opens the whole subject of mesmeric action, and the influence of body over body, of the mind on body, and of the body on mind; of the nature of sleep, somnambulism, trance, and *clairvoyance*. — I must confine myself to a few observations.

The influence is usually received by those who have in some way been brought into relation or *rapport* with the dying person: and the influence is generally received during sleep, when the internal senses are freed from the ordinary senses, and qualified to receive direct influences from without. Any change occurring in the condition of those with whom they were held more immediately in relation, (magnetic relation I will call it,) would be felt, and awake attention, just as any change upon our ordinary senses, either when awake or sleeping, arouses attention, — such as a candle going out when one

is asleep, or a strange noise occurring, or a familiar one ceasing.

Again, a person dying is often more or less falling into the trance condition — the bodily condition weakening; and the senses either become more acute, or the spirit-condition of the brain has a freer communication, or inter-relation with the universal medium without the dying person. Thinking of the individual impressed may be sometimes a condition of the effect; but this is far from being a universal cause. Persons are held in relation, as it were, by threads, the slightest alteration or loosening of which arrests attention and gives the impression. A somnambule or mesmerized person has much more influence in mesmerizing than a person in the normal state; and many a dying person partakes of this condition. I have known a dying child mesmerize a strong man by a few waves of the hand, the man having previously resisted the influence of powerful mesmerism. Any change in the nervous condition affects others. I have told you how distinctly I felt the commencement of the mesmeric condition in my patient, as of a slight electric shock; and I have been sensible of each change during the sleep, and of the flowing away of disease. When diseases are dying out they influence others. It is even so with a common cold, which passes away to another. And so, likewise, the state of the dying person influences: — flies off, as it were; disturbs or influences the universal medium, and thus reaches those in whom there was *rapport*, if they be in a fit condition to receive.

Generally, the time most fitted to receive impressions of this nature is in a second sleep. Some persons die in an insensible, heavy sleep. I should not think that such a death would be felt like those in which a more trance-like state occurs, or where there is a blazing up and going out at once. In such a case as this last I have no doubt that a sensitive person would see light emitted. Experiments might be made with the sensitive upon dying animals. A trance or fainting fit sometimes impresses persons at a distance in the same way as a death, and it is believed that death has occurred.

The presentiment of death is the intuitive faculty influenced by the changing condition, and by the intuitive condition, perhaps, of the dying person. The intuitive sense seems to act often unconsciously; but the same state may become consciousness to another. The foreseeing events, or prophecy, seems to be the least comprehensible form of these singularly interesting phenomena.

To estimate properly the effects of persons dying, we require more correct data as to time and circumstance; and it is difficult to attain this. But of the existence of the fact I have evidence in the form of many good instances; and so have you: and most persons have some case of the kind to relate. When the dying person appears to another in a form, such as of a black cat, or a shadow, or as a person, it is merely an induced condition, or subjective embodiment of an impression made. How any one can conclude otherwise seems mar-

vellous. When a man is dead, he is dead — as a magnet is dead when the magnetic force is removed. A diamond is dead when it becomes charcoal. A certain constrained force, so to speak, is released, and this it is which influences. In every change force is released, and a disturbance caused.

We have yet to learn the relations we bear to each other: how we may influence each other by our good or ill condition. We have yet to learn that we may not do as we will with our own: for our own is others'. The knowledge which mesmerism gives of the influence of body on body,* and consequently of mind on mind, will bring about a morality we have not yet dreamed of. And who shall disguise his nature and his acts when we cannot be sure at any moment that we are free from the *clairvoyant* eye of some one who is observing our actions and most secret thoughts, and our whole character and history may be read off at any moment! Few have the faintest idea of the influence these great truths will have upon the morals of men, and upon our notions generally. Yes, there are indeed "more truths in heaven and earth than are" told "of in our philosophy." Men may smile, no doubt. But so they did at the railway, and the electric telegraph, and gas-lights, and phrenology, and the circulation of the blood; and at the news that there were men standing with their feet towards ours; that the stars are worlds; that the earth moves round the sun. Men have smiled, and ridi-

* Appendix A A.

culed, and blasphemed against every truth as it has been revealed. When will the world learn wisdom by the past, and hope for the future, and be ashamed and humble when it wants knowledge? Only, I think, when the philosophy of Man and Mind, raised from its true basis of material fact, is developed, and admittted as a Science by the world. That men cannot imagine beyond their knowledge, is clear from every new truth being at first considered impossible and unnatural.

Of one thing I am sure, — that we are as yet but on the very threshold of knowledge, and that our social condition is depravity through and through, and from end to end. But the true philosopher will be all patience for the present, and confidence for the future, and never in haste to form institutions in advance of knowledge and the condition of society.

XXIII.

POSITION AND PRIVILEGE OF TRUTH-SEEKERS.

H. M. to H. G. A.

I do not like to say any thing after your last letter. I do not like to touch it, or the state of mind it produces in me. Yet it is right to tell you that it does so work upon any one mind as it does upon mine. — What an emancipation it is, — to have

escaped from the little enclosure of dogma, and to stand, — far indeed from being wise, — but free to learn! How I wonder at myself now for having held (and very confidently held forth upon it, I am ashamed to say) that at all events it was safe to believe dogma: that for instance, whether there was a future state or not, it was safe and comfortable to believe it: — that if, even, there was no God, serving as a model to Man, — the original of the image, — it was safe and tranquillizing to take for granted that there was. The enormity of this mistake was not fully apparent to me till last year, when a young man destined for the church, but not satisfied about all its doctrines, and in a state of fluctuation about his duty altogether, laid down as the one certain thing in his own and every other case, that at all events it was safe to take for granted what the Church prescribed. The very first step he took from this position was to conclude that his difficulties about a leading doctrine arose from personal sinfulness, and must be resolutely put down. I found then how clear and strong had become my vision and grasp of the truth that the holding of error is an incapacitating condition: — an evil infinitely worse than the merely being occupied with what is untrue, — bad as that is. I saw clearly how enervating and depraving is the practice of harboring, through timidity or indolence, what is suspected to be untrue. The mere exclusion of the truth, by presence of the error, is a prodigious evil: but far greater is the misfortune

of the deterioration of all the powers, — from the lowest faculties of perception up to the highest of conscientiousness, reverence and benevolence, — which ensues upon all tampering with our own best nature. — And what a *feeling* it is, — that which grows up and pervades us when we have fairly returned to our obedience to Nature! What a healthful glow animates the faculties! what a serenity settles down upon the temper! One seems to have even a new set of nerves, when one has planted one's foot on the broad common of Nature, and clear daylight, and bracing breezes are about one, and there are no more pitfalls and rolling vapors, — no more raptures and agonies of selfish hope and fear, — but sober certainty of reliance on the immutability of Nature's laws; and the lofty liberty that is found in obedience to them. — We are still, and our kind must long continue to be, injured in power and in peace by the operation of past ignorance, which has mournfully impaired the conditions of human life; but the emancipation which may be obtained is already precious beyond all estimate. Ignorant as we yet are, — hardly able yet (even the wisest of men) to snatch a glimpse of the workings of Nature, or to form a conception of the existence of Law, — obvious as it is that our condition is merely that of infant-waking upon the world of existence, the privilege of freedom, as far as we are able to go, is quite inestimable: — perhaps indeed as great as it can ever be. It is hard to conceive that it can do

more for individuals at any time than animate their intellects, renovate their consciences, elevate and refine their moral conceptions and conduct, and lift them out of the condition of passionate children into one of serene maturity of faculty, though not of knowledge.

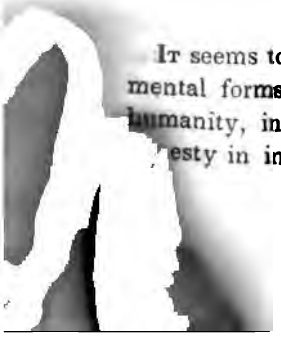
I thank you for the indications you give in this last letter of yours of the immediate nature and immeasurable extent of our ignorance. What a field it opens! what a prospect of ever-growing enjoyment to succeeding generations, in the development of the universe under their contemplation! If we, — you with your habit of study, and I with my growing conception of what study is, — are daily sensible of the enjoyment of that "perpetual spring of fresh ideas" which Mrs. Barbauld so well holds out, what must be the privilege of future generations who shall at the same time be more naturally free to learn, and find themselves in a bright noonday region and season of inquiry! It is truly cheering to think of. If we feel a contentment in our own lot which must be sound because it is derived from no special administration of our affairs, but from the impartial and necessary operations of Nature, we cannot but feel, for the same reasons, a new exhilaration on account of the unborn multitudes who will, ages hence, enter upon existence on better terms than those on which we hold it, — contented as we are with our share of the good and the evil of human life. — It is a pleasant thing to have a daily purpose of raising and

disciplining ourselves for no end of selfish purchase or ransom, but from the instinctive tendency to mental and moral health. It is a pleasant thing to be free from all arbitrary restraint in ministering to the good — great or small — of any who are about us. But what a great thing it is to have, over and above all this, the conception of a future time, when all discipline will consist in a sweet and joyful surrender to Nature, and all the forces of the universe will combine to lift Man above his sorrows, to expand his old faculties, and elicit new, and to endow him at once with all the good obtained by former generations, together with new accessions far beyond the compass of our thought! — Nothing short of this seems to be the prospect of our race: and does it not shed back a light to our very feet, — not only on high occasions of intercourse or meditation, but every day?

XXIV.

POSITION AND PRIVILEGE OF TRUTH-SPEAKERS.

H. G. A. to H. M.



It seems to me there are three principal fundamental forms of the moral life; namely — active humanity, industry in acquiring knowledge, and honesty in imparting what we know. — It is one

of the highest duties of Man to learn to know himself; and, secondly, to allow himself to be known — but the contending and false systems of the world are a great hinderance to simplicity of character and moral growth. — The mathematician, the linguist, the geologist, the chemist, may be very wise in those matters which they have studied, but very bad moralists, and wholly incompetent to govern and educate men. The power to govern is in the knowledge of the nature of the thing governed. The mathematician may be a very bad reasoner on physiological matters, and the linguist no wiser for the ability to utter the same idea in several languages. If you would regulate your clock, you apply to the clockmaker; if you would regulate a steam engine, you apply to the engineer: if you would cure a disease, you send for the physician: but if you would develop Man's nature, and learn how to regulate his conduct, both as an individual and as a member of society, would you send to Cambridge for a mathematician, or to Oxford for a linguist, or apply to the clockmaker or the village doctor? — "Man knows no more than he has observed:" but whose profession is it to observe the laws of Man's nature and development? Physicians follow systems, take up their subject only in part; and to this day are disputing about the most ordinary diseases, and the right method of cure; both as regards the physical conditions and the required phenomena. The homœopathic law — that "like cures like" — is doubtless a great truth,

but certainly not the only principle of cure — nor of universal application. It is painful to see how every fresh application of a principle is twisted into a system — becomes a dogma, and hangs like a log about men's heels. Physicians, again, remain ignorant of the most important facts in physiology, not clearly recognizing the principle that every part of a subject must be studied by itself, — and also in relation to the whole, and the whole again in relation to a class of truths, and to universal nature. The body cannot be understood when studied as a matter separate from its phenomenon Mind; nor Mind irrespective of physical conditions, causes, and laws. The metaphysician again meditates upon his sensations and their sequence: and sees but in part, and very imperfectly, strangely unaware of the delusions to which he is subject: but could he even perceive correctly the whole phenomena of his thoughts and their order of development, it would only be like studying his bodily constitution by looking at himself in a glass: and he could tell you no more about the mind's action, the difference of men and the laws and causes of development, than the old woman in the village can tell you in regard to medicine and the true nature and cause of diseases; and the metaphysician's mind is prejudiced and stuffed up by learning and abstract thought, and requires as much free air and ventilation as the old woman's cottage, and, cleared of the cobwebs, will have to commence study afresh after another method. Man is the result of organization — the

external circumstances acting upon this, and the force of knowledge. Plato was fully impressed with this; and his only hope for man was in producing good organizations, which were to be trained and developed under the most favorable circumstances; the whole to be regulated by pure morality and correct reasoning, after the inductive method. He would force the best men to govern, and would not allow the legislator to accumulate wealth or to marry: but would have his mind left as free as possible from all selfish considerations and temptations, from all influences likely to damage his love of truth, his honesty, or desire for the general good. The cause of the theological errors of Plato and Socrates we can now clearly understand; and is it not the duty of every man to endeavor to know himself, and the origin of his opinions? "Know thyself," was the wise saying of Thales. "Bear and forbear," the constant admonition of Epictetus. In the confusion of opinions which now exists, and which seems likely to increase, I see no hope but in a thorough investigation and reconsideration (so to speak) of Man's nature, the laws of his development, and the cause and origin of the opinions which he holds, and which men quarrel about, not seeing that their opinions are involuntary, and that, consequently, it is as great folly to quarrel about our opinions, as about the shape of our different noses. But I hear, on every hand, that men want courage to speak the truth: that those who do declare their honest and full

convictions often suffer in their worldly affairs, and find themselves stigmatized by the clergy. This, I fear, is but too true; and it exhibits the demoralizing influence of articles of faith, and creeds, and dogmas; but surely to utter the truth that is within you dispassionately, and in pure affection, and for the general good — is most worthy of a good nature; and as natural as the desire of freedom, and the growth of beauty. To an honest mind, the courage would seem to be in the daring to secrete the truth, and to oppose the dictates of conscience, and the free action of the mind.

Shall we be content to receive all the benefits of life, delighting in the free developing and beauty of nature whilst we remain ourselves under a mask, standing there a conscious criminal in the midst? for to disguise or deny what is true is to live *in a* lie, brave towards right, and a coward towards men: but there are many persons, and most respectable, good, and pious persons, too, who have no faith in knowledge; in that faith of faiths, that rest for hope, that solace of grief; in that which so surely contributes to peace and peace of mind; to true wisdom and good works. And these persons talk of dangerous truths, as if all the danger did not come from the side of ignorance and error; or as if any one truth could be opposed to any other truth — or to any system or faith founded *on that* which is true.

To appear respectable in the eyes of the *world*, many there are who attend church, say grace,

and stickle for the sabbath; and who, if necessary, would change their religion! and yet, if all would be truthful and sincere, we should be saved from much of this fearfully demoralizing hypocrisy and cant; and there would soon be an end to persecution and the reign of terror. Men, again, desire a continuance of existence, and a renewed life: yet it is not the future they want, but a continuance of the present, for they shrink from every change, and struggle against every new truth, and with a bitterness and alarm that shows like insanity: but no wise man will desire that any one thing be true in preference to another; nor that nature should stand still for his special gratification; and when he is in error, he will be most thankful for correction, and receive the news as gladly as if he had discovered a new truth. Nor must we forget that all conditions of things and opinions are right, and the best they can be in the time in which they exist — having their place in the plan of nature's progressive development. Again, that evil to individuals is universal good, and the calamities of life the occasion for magnanimity and the highest virtues — Pain or pleasure — good or evil report, will follow as a consequence of our acts; but must never be the reason or motive of action: and men must be admonished that the recognition of philosophical Necessity, or the sense of universal Law, will not, as some suppose, set men loose from restraint to indulge their passions and evil desires. These good people seem strangely possessed with

notions of Man's innate wickedness. On the other hand, it will not induce people "to lie down in a ditch and die," because they cannot help themselves. The reverse will be the fact: for a knowledge of the cause will give a reason for exertion, and a confidence they did not possess before. The knowledge of the cause will present a means to an end, and induce the application: and those who believe in freedom, (that is, in a cause uncaused in the will, and which, after all, would not be freedom,) are those who are most indolent and doubting, believing, as they do, in a kind of chance, (which is the most fatal of all fatalisms,) though, at the same time, inconsistently enough by their prayers, teachings, and preaching, rewards and punishments, &c., acknowledging, in practice, a belief in moral results from sufficing causes. In a strange confusion of ideas, they neglect true fundamental causes, and the study of the Laws of Man's Nature and Development, and even deny the existence of such laws. But none are to blame, though so many are in error: — in error from want of knowledge, and a clear, untarnished mind, and a Right Method of Inquiry.

APPENDIX.

A. — (Page 52.)

"DIVINATION hath been anciently and fitly divided into artificial and natural: whereof artificial is, when the mind maketh a prediction by argument, concluding upon signs and tokens: natural is, when the mind hath a presentation by an internal power, without the inducement of a sign. Artificial is of two sorts: either when the argument is coupled with a derivation of causes, which is rational; or when it is only grounded upon a coincidence of the effect, which is experimental; whereof the latter, for the most part, is superstitious; such as were the heathen observations upon the inspection of sacrifices, the flights of birds, the swarming of bees, and such as was the Chaldean astrology, and the like. For artificial divination, the several kinds thereof are distributed amongst particular knowledges. The astronomer hath his predictions, as of conjunctions, aspects, eclipses, and the like. The physician hath his predictions, of death, of recovery, of the accidents and issues of diseases. The politician hath his predictions, 'O, urbem venalem, et cito perituram, si emptorem invenerit!' which staid not long to be performed in Sylla first, and after in Cæsar; so as these predictions are now impertinent and to be referred over. But the divination which springeth

from the internal nature of the soul, is that which we now speak of; which hath been made to be of two sorts, primitive, and by influxion. Primitive is grounded upon the supposition, that the mind, when it is withdrawn and collected into itself, and not diffused into the organs of the body, hath some extent and latitude of pre-notion, which therefore appeareth most in sleep, in ecstasies, and near death, and more rarely in waking apprehensions; and is induced and furthered by those abstinences and observances which make the mind most to consist in itself: by influxion, is grounded upon the conceit that the mind, as a mirror or glass, should take illumination from the foreknowledge of God and spirits; unto which the same regimen doth likewise conduce. For the retiring of the mind within itself, is the state which is most susceptible of divine influxions, save that it is accompanied in this case with a fervency and elevation, which the ancients noted by fury, and not with a repose and quiet, as it is in the other."—*Bacon: The Advancement of Learning.*

"If there be any force in the imagination and affections of singular persons, it is probable the force is much more in the joint imaginations and affections of multitudes: as if a victory should be won or lost in remote parts, whether is there not some sense thereof in the people whom it concerneth; because of the great joy or grief that many men are possessed with at once? Pius Quaintus at the very time when that memorable victory was won by the Christians against the Turks, at the naval battle of Lepanto, being then hearing of causes in consistory, brake off suddenly, and said to those about him, 'It is now more time we should give thanks to God for the great victory he hath granted us against the Turks:' it's true, that victory had a sympathy with his spirit: for it was merely his work to

conclude that league. It may be that revelation was divine; but what shall we say then to a number of examples amongst the Grecians and Romans? where the people being in Theatres at plays, have had news of victories and overthrows, some few days before any messenger could come." —*Bacon: Natural History, 10th Century.*

"But if Plutarch, besides several examples that he produces out of antiquity, tells us of his certain knowledge, that in the time of Domitian the news of the battle lost by Anthony, in Germany, was published at Rome many days' journey thence, and dispersed throughout the whole world the same day it was fought: and if Cæsar was of opinion that it has often happened that the report has preceded the event, shall we say that, forsooth, these simple people have suffered themselves to be deceived with the vulgar, not having been so clear-sighted as we?"—*Montaigne*, ch. xxvi.

"Our souls, then, having this inbred power, though weak, obscure, and hardly able to express their apprehensions; yet sometimes they spread forth and recover themselves, either in dreams or in the time of sacrifice or religious worship, when the body is well purified, and is indued with a certain temperature proper to this effort; or when the rational or speculative part being released and freed from the solicitude after present things, joins with the irrational and imaginative part, to think of, and represent what is to come; for it is not, as Euripides saith, that he is the best prophet who guesses well; but he is the wisest man, not whose guess succeeds well in the event, but who, whatever the event be, takes reason and probability for his guide. Now the faculty of divining, like blank paper, is void of any reason or determination

of itself, but is susceptible of fantasies and pretensions, and without any ratiocination or discourse of reason, touches on that which is to come, when it is farthest off from the present, out of which it departs, by means of a certain disposition of body, which we call inspiration or enthusiasm. Now the body is sometimes indued naturally with this disposition; but most times the earth casts forth to men the sources and causes of several other powers and faculties, some of which carry men beside themselves into ecstasy and frenzy, and produce maladies and mortalities; others again are sometimes good, gentle, and profitable, as appears by those who have had the experience of them. But this spring, or wind, or spirit of divination, is most holy and divine, whether it be raised by itself through the air, or be compounded and mixed with a watery or liquid substance. For being infused and mixed with the body it produces an odd temperature and strange disposition in the soul, which a man cannot exactly express, though he may resemble or compare it to several things; for by heat and dilation it openeth certain pores that make a discovery of future things; like wine, which causing fumes to ascend up into the head, puts the spirits into many unusual motions, and reveals things that were laid up in secret."—"'Tis no wonder then, if the earth, sending up many exhalations, only those of this sort transport the soul with a divine fury, and give them a faculty of foretelling future things. And without doubt, what is related touching the oracle of this place, does herewith agree. For it is here that this faculty of divining first showed itself, by means of a certain shepherd, who chanced to fall down and began to utter enthusiastic speeches concerning future events; of which, at first, the neighbors took no notice; but when they saw what he foretold come to pass, they had him in admiration, and the most

learned among the Delphians, speaking of this man, are used to call him by the name of Coretas." — "And as to the oracle of Mopsus, I can, from my own knowledge, tell you a strange story about it. The Governor of Cilicia was a man inclining to scepticism, and doubtful whether there be gods; and had about him several Epicureans, who were wont to mock at the belief of such things as seem contrary to reason. He sent a freed servant of his in the nature of a spy, with a letter sealed, wherein was the question he was to ask the Oracle, nobody knowing the contents thereof. This man, then, as the custom of the place is, remaining all night in the temple porch asleep, related the next morning the dream which he had; for he thought he saw a very handsome man stand before him, who said only this word, 'Black,' to him, and nothing else, for he vanished away immediately. This seemed to us very impertinent, though we could not tell what to make of it; but the Governor marvelled at it, and was so nettled with it, that he had the Oracle in great veneration ever since; for, opening the letter, he showed this question which was therein: Shall I sacrifice to thee a white bull or a black? which dashed his Epicureans quite out of countenance; and he offered the sacrifice required, and to the day of his death continued a devout admirer of Mopsus." — "But to what purpose, if it be true, that souls are naturally indued with the faculty of prediction, and that the chief cause that excites this faculty and virtue, is a certain temperature of air or wind? and what signifies then the sacred institutions and setting apart these religious prophetesses, for the giving of answers? And why do they return no answer at all, unless the sacrifice tremble all over, even from the very feet, while the wine is poured on its head?" — *Plutarch, on Oracles.*

Extract from Mr. Wesley's Journal, under the head "July, 1761."

"About one, I preached at Bramley, where Jonas Rushford, about fourteen years old, gave me the following relation: 'About this time last year I was desired by two of our neighbors, to go with them to Mr. Crowther's at Skipton, who would not speak to *them*, about a man that had been missing twenty weeks, but bid them bring a boy twelve or thirteen years old. When we came in he stood reading a book. He put me into a bed with a looking-glass in my hand, and covered me all over. Then he asked me, whom I had a mind to see; and I said "My mother." I presently saw her with a lock of wool in her hand, standing just in the place and the clothes she was in, as she told me afterwards. Then he bid me look again for the man that was missing, who was one of our neighbors: and I looked and saw him riding towards Idle; but he was very drunk: and he stopped at the alehouse and drank two pints more; and he pulled out a guinea to change. Two men stood by, a big man and a little man; and they went on before him and got two hedgestakes. And when he came up, on Windhill Common, at the top of the hill, they pulled him off his horse and killed him and threw him into a coal-pit. And I saw it all as plainly as if I were close to them: and if I saw the men I should know them again. We went back to Bradford that night, and the next day I went with our neighbors, and showed them the spot where he was killed, and the pit into which he was thrown. And a man went down and brought him up; and it was as I told them: his handkerchief was tied about his mouth, and fastened behind his neck.'

"On which Mr. Wesley makes this remark:—

"'Is it improbable only, or flatly impossible, when all the circumstances are considered, that this should all be

pure fiction? They that can believe this, may believe a man's getting into a bottle.'"

Another extract from Mr. Wesley's Works, vol. x. p. 163.

"A little before the conclusion of the late war in Flanders, one who came from thence gave us a very strange relation. I knew not what judgment to form of this; but waited till John Haime should come over, of whose veracity I could no more doubt, than of his understanding. The account he gave was this: 'Jonathan Pyrah was a member of our society, in Flanders. I knew him some years, and knew him to be a man of unblamable character. One day he was summoned to appear before the board of general officers. One of them said, "What is this which we hear of you? We hear you are turned prophet, and that you foretell the downfall of the bloody house of Bourbon, and the haughty house of Austria. We should be glad if you were a real prophet, and if your prophecies came true. But what sign do you give to convince us you are so; and that your predictions will come to pass?" He readily answered: "Gentlemen, I give you a sign. To-morrow at twelve o'clock, you shall have such a storm of thunder and lightning, as you never had before since you came into Flanders. I give you a second sign: As little as any of you expect any such thing, as little appearance of it as there is now, you shall have a general engagement with the French within three days. I give you a third sign: I shall be ordered to advance in the first line. If I am a false prophet I shall be shot dead at the first discharge. But if I am a true prophet I shall only receive a musket ball in the calf of my left leg." At twelve the next day there was such thunder and lightning as they never had before in Flanders.

On the third day, contrary to all expectation, was the general battle of Fontenoy. He was ordered to advance in the first line, and at the very first discharge he received a musket ball in the calf of his left leg.'"

Swedenborg's Clairvoyance independent of Mesmerism.

Kant gives a relation concerning a Madam Von Marseville, and continues thus: —

"But the following occurrence appears to me to have the greatest weight of proof, and to set the assertion respecting Swedenborg's extraordinary gift out of all possibility of doubt. In the year 1759, when M. de Swedenborg, towards the end of February, on Saturday, at four o'clock, P. M., arrived at Gottenburg from England, Mr. William Costel invited him to his house, together with a party of fifteen persons. About 6 o'clock M. de Swedenborg went out, and after a short interval returned to the company quite pale and alarmed. He said that a dangerous fire had just broken out in Stockholm, at the Sudermalm, (Gottenburg is about three hundred miles from Stockholm,) and that it was spreading very fast. He was restless and went out often: he said that the house of one of his friends, whom he named, was already in ashes, and that his own was in danger. At 8 o'clock, after he had been out again, he joyfully exclaimed, 'Thank God! the fire is extinguished the third door from my house.' This news occasioned great commotion through the whole city, and particularly amongst the company in which he was. It was announced to the Governor the same evening. On the Sunday morning, Swedenborg was sent for by the Governor, who questioned him concerning the disaster. Swedenborg described the fire precisely, how it had begun, in what manner it had ceased, and how long

it had continued. On the same day the news was spread through the city, and, as the Governor had thought it worthy of attention, the consternation was considerably increased; because many were in trouble on account of their friends and property, which might have been involved in the disaster.

"On the Monday evening a messenger arrived at Gottenburg, who was despatched during the time of the fire. In the letters brought by him, the fire was described precisely in the manner stated by Swedenborg. On the Tuesday morning the royal courier arrived at the Governor's with the melancholy intelligence of the fire, of the loss which it had occasioned, and of the houses it had damaged and ruined, not in the least differing from that which Swedenborg had given immediately after it had ceased, for the fire was extinguished at 8 o'clock.

"What can be brought forward against the authenticity of this occurrence? My friend, who wrote this to me, has not only examined the circumstances of this extraordinary case at Stockholm, but also about two months ago, at Gottenburg, where he is acquainted with the most respectable houses, and where he could obtain the most authentic and complete information; as the greatest part of the inhabitants who are still alive were witnesses to the memorable occurrence.

"I am, with profound reverence, &c.,

"EMANUEL KANT."

"Kœnigsburg, Aug. 10, 1768."

ZSCHOKKE'S DIVINATION.*

"There was, however, no want of agreeable society in my new retirement, either that of some select families

* He is well known as an author, statesman, philosopher, and reformer.

and individuals in the city, or old friends and acquaintances of the Union, who never forgot me when they passed, or in visits from travellers allured by the love of wandering into Switzerland, or borne hither by the wind of destiny. I never failed to receive such visitors with all due honor, having learned from experience how gladly in travelling, we make use of such opportunities to fill up vacant moments, in order to acquire information, to enrich the harvest of remembrance. I, therefore, submitted to my fate with resignation. If this kind of virtue became burdensome at times, it was rewarded at others by making the acquaintance of remarkable persons, or by the opportunities it yielded for the exercise of a singular kind of prophetic gift which I called my 'inward sight,' but which has ever been enigmatical to me. I am almost afraid to speak of this, not because I am afraid to be thought superstitious, but that I may thereby strengthen such feelings in others. And yet it may be an addition to our stock of soul-experiences, and, therefore, I will confess!

"It is well known that the judgment we not seldom form at the first glance of persons hitherto unknown, is more correct than that which is the result of longer acquaintance. The first impression that through some instinct of the soul attracts or repels us with strangers, is afterwards weakened or destroyed by custom, or by different appearances. We speak in such cases of sympathies or antipathies, and perceive these effects frequently among children to whom experience in human character is wholly wanting. Others are incredulous on this point, and have recourse rather to the art of physiognomy. Now for my own case.

"It has happened to me, sometimes, on my first meeting with strangers, as I listened silently to their discourse,

that their former life, with many trifling circumstances therewith connected, or frequently some particular scene in that life, has passed quite involuntarily, and, as it were, dream-like, yet perfectly distinct, before me. During this time I usually feel so entirely absorbed in the contemplation of the stranger life, that, at last, I no longer see clearly the face of the unknown wherein I undesignedly read, nor distinctly hear, the voices of the speakers, which before served, in some measure, as a commentary to the text of their features. For a long time I held such visions as delusions of the fancy, and the more so as they showed me even the dress and motions of the actors, rooms, furniture, and other accessories. By way of jest, I once, in a family circle at Kirchberg, related the secret history of a seamstress who had just left the room and the house. I had never seen her before in my life; people were astonished and laughed, but were not to be persuaded that I did not previously know the relations of which I spoke, for what I had uttered was the *literal* truth; I, on my part, was no less astonished that my dream-pictures were confirmed by the reality. I became more attentive to the subject, and when propriety admitted it, I would relate to those whose life thus passed before me, the subject of my vision, that I might thereby obtain confirmation or refutation of it. It was invariably ratified, not without consternation on their part.* I myself had less confidence than any one in this mental jugglery. So, often as I revealed my visionary gifts to any new person, I regularly ex-

* "'What demon inspires you? Must I again believe in possession?' exclaimed the *spirituel* Johann von Riga, when, in the first hour of our acquaintance, I related his past life to him, with the avowed object of learning whether or no I deceived myself. We speculated long on the enigma, but even his penetration could not solve it."

pected to hear the answer: 'It was not so.' I felt a secret shudder when my auditors replied that it was true, or when their astonishment betrayed my accuracy before they spoke. Instead of many, I will mention one example, which preëminently astounded me. One fair day, in the city of Waldshut, I entered an inn (the Vine,) in company with two young student foresters: we were tired with rambling through the woods. We supped with a numerous society at the *table d'hôte*, where the guests were making very merry with the peculiarities and eccentricities of the Swiss, with Mesmer's magnetism, Lavater's physiogonomy, &c., &c. One of my companions whose national pride was wounded by their mockery, begged me to make some reply, particularly to a handsome young man who sat opposite us, and who had allowed himself extraordinary license. This man's former life was at that moment presented to my mind. I turned to him and asked whether he would answer me candidly if I related to him some of the most secret passages of his life, I knowing as little of him personally as he did of me. That would be going a little further, I thought, than Lavater did with his physiognomy. He promised, if I were correct, in my information, to admit it frankly. I then related what my vision had shown me, and the whole company were made acquainted with the private history of the young merchant; his school years, his youthful errors, and lastly, with a fault committed in reference to the strong box of his principal. I described to him the uninhabited room with whitened walls, where, to the right of the brown door, on a table, stood a black money-box, &c., &c. A dead silence prevailed during the whole narration, which I alone occasionally interrupted by inquiring whether I spoke the truth. The startled young man confirmed every particular, and even, what I had scarcely expected, the last men-

tioned. Touched by his candor, I shook hands with him over the table, and said no more. He asked my name, which I gave him, and we remained together talking till past midnight. He is probably still living!

"I can well explain to myself how a person of lively imagination may form, as in a romance, a correct picture of the actions and passions of another person, of a certain character, under certain circumstances. But whence came those trifling accessories which *nowise concerned me*, and in relation to people for the most part indifferent to me, with whom I neither had, nor desired to have, any connection? Or, was the whole matter a constantly recurring *accident*? Or, had my auditor, perhaps, when I related the particulars of his former life, very different views to give of the whole, although in his first surprise, and misled by some resemblances, he had mistaken them for the same? And yet impelled by this very doubt, I had several times given myself trouble to speak of the most insignificant things which my waking dream had revealed to me. I shall not say another word on this singular gift of vision, of which I cannot say it was ever of the slightest service; it manifested itself rarely, quite independently of my will, and several times in reference to persons whom I cared little to look through. Neither am I the only person in possession of this power. On an excursion I once made with two of my sons, I met with an old Tyrolese who carried oranges and lemons about the country, in a house of public entertainment, in Lower Hanenstein, one of the passes of the Jura. He fixed his eyes on me for some time, then mingled in the conversation, and said that he knew me, although he knew me not, and went to relate what I had done and striven to do in former times, to the consternation of the country people present, and the great admiration of my children, who were diverted to find

another person gifted like their father. How the old lemon merchant came by his knowledge he could explain neither to me nor to himself; he seemed, nevertheless, to value himself somewhat upon his mysterious wisdom." — *Autobiography of Zschokke*, pp. 169–172.

"The path is difficult, secret, and beset with terror. The ancients called it ecstasy or absence, a getting out of their bodies to think. All religious history contains traces of the trance of saints: a beatitude, but without any sign of joy; earnest, solitary, even sad; 'the flight,' Plotinus calls it, 'of the alone to the alone.' Μυεσις, the closing of the eyes, whence our word mystic. The trances of Socrates, Plotinus, Porphyry, Behmen, Bunyan, Fox, Pascal, Guion, Swedenborg, will readily come to mind. But what as readily comes to mind is the accompaniment of disease." — *Emerson, on Swedenborg.*

"I was never so willing to believe philosophy in any thing as this: it is a pure enthusiasm wherewith sacred truth has inspired the spirit of philosophy, which makes, I confess, contrary to its own proposition, that the most calm, composed, and healthful estate of the soul that philosophy can seat it in, is not its best condition; our waking is more a sleep than sleep itself; our wisdom less wise than folly; our dreams are worth more than our meditations — and the worst place we can take is in ourselves." — *Montaigne.*

"We better ourselves by the privation of our reason and by drilling it. The two natural ways to enter into the cabinet of the Gods, and there to foresee the course of destiny, are Fury and Sleep." — *Montaigne.*

B. — (Page 79.)

"When we make a general assertion, unless it be a true one, the possibility of it is inconceivable; and words whereby we conceive nothing but the sound, are those we call *absurd*, *insignificant*, and *nonsense*. And therefore, if a man should talk to me of a *round Quadrangle* or *accidents of bread in cheese*; or *immaterial substance*; or of a free subject; a free will; or any free, but free from being hindered by opposition; I should not say he was in an error; but that his words were without meaning; that is to say, absurd." — *Hobbes: Leviathan.*

"And indeed it may almost be asserted that all intemperance in any kind of pleasure, and all disgraceful conduct, is not properly blamed as the consequence of voluntary guilt; for no one is voluntarily bad; but he who is depraved becomes so through a certain bad habit of body, and an ill-governed education." "All the vicious are vicious through two most involuntarily causes, which we should always ascribe rather to the planters than the things planted, and to the trainers rather than those trained; but still it should be our anxious endeavor as far as we can, by education, studies and learning, to fly from vice and acquire its contrary virtue." — *Plato: Timæus.*

"Others cut off particular provinces of nature as exceptions from the plan of constant order. Whatever part is dubious or obscure, to mankind generally, or to themselves in particular, there they rear the torn standard of the arbitrary system of divine rule. Human volitions

form such a region to many who know not that Quetelet has reduced these to mathematical formulæ; and that one of our most popular divines has written a Bridgewater Treatise to show the predominance of natural law over mind, as a proof of the existence and wisdom of God." — *Sequel to the Vestiges of Creation*, p. 125.

"Moreover, what foundation of this justice can the Gods take notice of, or reward man after his death for his good and virtuous actions, since it was themselves that put them in the way and mind to do them? And why should they be offended at, or punish him for wicked ones, since themselves have created in him so frail a condition, and when, with one glance of their will, they might prevent him from falling." — *Montaigne.*

"Neither is it possible for any power to burst the chain of causes; nor is nature to be overcome, except by submission." — *Bacon.*

"The necessary connection of natural causes with their effects, is the reason for employing the former as the means for the attainment of the latter. But when the only useful change is ascribed to agents, of which the very essence is, that their agency is influenced by no laws ascertainable or comprehensible by Man, I am at a loss to discover how we can justify, in argument, the attempt to use means, of which we begin by denying the efficacy." — *Sir J. Mackintosh.*

C. — (Page 81.)

"And in these four things, opinions of ghosts, ignorance of second causes, devotion towards what men fear, and taking of things casual for prognostics, consisteth the natural seeds of religion; which, by reason of the different fancies, judgments, and passions of several men, hath grown up into ceremonies so different, that those which are used by one man, are, for the most part, ridiculous to another." — *Hobbes: Leviathan.**

"But men foolishly think that Gods are born like as men are; and have, too, a dress like their own, and their voice, and their figure; but if oxen and lions had hands like our own, and fingers, then would horses like unto horses, and oxen to oxen, paint and fashion their god-forms; and give to them bodies of like shape to their own as they themselves, too, are fashioned."— *Xenophanes.*

"The uneducated man regards the whole system of the world as resulting from, and depending upon, the immediate working and guidance of an Almighty Being, who acts, in each case, as may seem to him most meet, exactly as human creatures do." — *Sequel to the Vestiges of Creation.*

"You are fit," (says the supreme Krishna to a sage,) "to apprehend that you are not distinct from me. That which I am, thou art, and that also is the world, with its Gods, and heroes, and mankind. Men contemplate distinctions because they are stupefied with ignorance."— *Emerson, on Plato.*

* Hobbes's disbelief and ignorance of the adventitious and inner range of the mind's action, forced him into a *hard* scepticism, and spoiled his usefulness. *H. G. A.*

D.—(Page 94.)

"But Decæarchus, in three books, gives us an account of the disputings of several learned men at Corinth, and introduces Pherecrates, an old man of Phthios (reported to be of the family of Deucalion), arguing that there is no such thing as the soul, but that it is merely an empty name, and that the using the words *animantia*, and animalia, is ridiculous, inasmuch, as neither man nor beast has any soul, in Latin, *anima*; and that the power by which we do and suffer is equally spread in all living creatures alike, and inseparable from the body, as being nothing but the body so figured as by force of nature to have life and sense." — *Cicero, on Contempt of Death.*

"Again, let the required nature be the discursive power of the mind: the classification of human reason, and animal instinct appears to be perfectly correct, yet there are some instances in the actions of brutes, which seem to show that they too can syllogize."— *Bacon: Nov. Org., Aph.* 35.

"Many philosophers even furnished the brutes with a soul. The pious and benevolent Bonnet promised them immortality." — *Gall.*

"The mind of man, of the dog, and of all other animal mind, is part of the vital actions: it is the result of the elaborate mechanism perfected by nature." — *Sneé, on* [illegible] *and Reason.*

ot prudence that distinguishes men from beasts.
asts, that at a year old observe more, and pur-
:h is for their good, more prudently than a
at ten." — *Hobbes.*

E. — (Page 102.)

"For although nothing exists in nature except individual bodies, exhibiting clear individual effects, according to particular laws; yet, in each branch of learning, that very law, its investigation, discovery, and development, are the foundation both of theory and practice." — *Bacon: Nov. Org., Aph.* 2, Book 2d.

"I do not believe that there is now one object or event in all our experience of nature, within the bounds of the solar system, at least, which has not either been ascertained by direct observation to follow laws of its own, or been proved to be exactly similar to objects and events, which, in more familiar manifestations, or on a more limited scale, follow strict laws: our inability to trace the same laws on a larger scale, and in the more recondite instances, being accounted for by the number and complication of the modifying causes, or by their inaccessibility to observation." — *Mill's System of Logic*, ii. 116.

"No more causes, or any other causes of natural effects, ought to be admitted but such as are both true and are sufficient for explaining their appearances." — *Newton.*

"Every branch of human knowledge hath its proper principles, its proper foundation, and method of reasoning: and if we endeavor to build it upon any other foundation, it will never stand firm and stable. Thus, the historian builds upon testimony, and rarely indulges conjecture. The antiquarian mixes conjecture with testimony; and the former often makes the larger ingredient.

The mathematician pays not the least regard either to testimony or conjecture, but deduces every thing by demonstrative reasoning, from his definitions and axioms. Indeed, whatever is built upon conjecture is improperly called science: for conjecture may beget opinion, but cannot produce knowledge. Natural philosophy must be built upon the phenomena of the material system discovered by observation and experiment." — *Reid.*

"Sir Isaac Newton has the merit of giving the form of a science to this branch of (Natural) Philosophy; and it need not appear surprising, if the philosophy of the Human Mind should be a century or two later in being brought to maturity." — *Reid.*

F.— (Page 126.)

"Having expressed my desire to you, gentlemen, to avail myself of Dr. Strong's liberal offer to try the effect of mesmerism upon the inmates of the Insane Hospital here, you were kind enough to sanction a monthly expenditure of 20 rupees for this purpose, which has been spent in paying ten of the guards 2 rupees a month each to act as mesmerizers. Being familiar with the soothing and strengthening effects of mesmerism upon the debilitated and irritable nervous systems of the sane, and believing that insanity, in general, originates in debility or functional derangement of the brain, I expected to find mesmerism of service in the treatment of madness, like every thing else that restores tone and regularity to the system. But functional derangement of the brain, if long neglected,

becomes as inveterate as other chronic diseases of function, and success under any treatment will mainly depend upon early attention being paid to the case. The Asylum here only contains the most unfavorable and disheartening subjects to work upon; the inmates being generally poor, friendless wretches, picked up by the police in highways, or confined by order of the magistrate for offences committed in paroxysms of madness. We have seldom any previous history of the individual to enable us to guess whether the disease is one of organic lesion or functional derangement only of the brain, and possibly the persons may never have been sane in their lives; under these circumstances, any success whatever from a new mode of treatment would surely be very satisfactory and encouraging. By habitually expecting little, and being thankful for the smallest favor from nature, I have generally had my expectations more than realized.

"The patients were taken in the order of their names in the register, and none were rejected, except for old age or self-evident idiocy; care being also taken that the persons were *then perfectly mad*, lest a lucid interval might be the commencement of a permanent cure. During the last six months, thirty-seven persons have been mesmerized, and the results are: —

8 cured.
1 cured, and relapsed.
18 no change.
1 died.
9 under treatment — 5 much improved.

37

"As I mentioned, *we found the insane as readily affected as the sane;* many of the patients being thrown into the trance, although it was not desired to do so, it not

being thought *necessary*. One morning I found a new man being mesmerized, without orders; the native doctor said, that he had come to the hospital that morning, and, as his throat was cut, he had desired him to be entranced, if possible, to have it sewn up. On examining the man I found him intensely entranced (after half an hour), and fit to bear any operation; but, I not having the necessary instruments at hand, it was put off. Next day, he was again found entranced, and the edges of the wound having become callous, they were pared raw with a knife, and the wound was then brought together with stitches and plaster. He was in no way disturbed by this, and, on waking, was surprised to find himself no longer breathing through the hole in his neck. Several of the men dated their recovery from a certain day, saying, that after awaking on such a day they had felt their '*heads lightened*,' or their '*hearts opened;*' and their conduct and appearance agreed with this statement. The rapid change effected in one man, named Beekoram, was very striking. When brought before us, he was the very picture of a moping madman, his mind and body being equally listless and apathetic; his countenance was void of expression, and no rational answers to questions could be got from him. This was one of the men who passed into the trance, and at the end of ten days he was absolutely *a new being, and had become as active and intelligent as he had formerly been torpid and stupid.*

"Dr. Strong, one day, asked me in conversation, if there was any reason to suppose that the natives of this country knew mesmerism before we introduced it among them. I replied that it could not be reasonably doubted, and that their medical conjurers are often genuine mesmerizers, as I have described in my *Mesmerism in India*. This has been confirmed from different quarters, and

especially by Dr. Davidson, late resident at Jeyepore. This gentleman, visiting our hospital, and seeing the mesmerizers stroking and breathing upon the patients, said, 'I now understand what the *jar-phoonk* of Upper India means; it is nothing but mesmerism.' Being requested to explain himself, he continued:—'Many of my people, after I had tried in vain to cure them of different severe complaints, used to ask leave for several weeks to be treated by the *Jadoo-wallah*, or conjurer; and, to my great surprise, they often returned quite well, and, in reply to my inquiries, they always said that they had undergone a process called *jar-phoonk*. I could never understand what this was, but I now see it before me; it is the combination of stroking and breathing; *jarna*, being to *stroke*, and *phoonka*, to *breathe*; which very correctly describes the mesmeric process.'

"This conversation with Dr. Strong took place in the presence of the mesmerizers and patients; and, turning to the former, I asked if any of them knew what the *jar-phoonk* was in Upper India; but they were chiefly Bengalese, and had not heard of it. Beekoram, who had been listening, said, '*Jar-phoonk?* O yes, I know it,—I am an up-countryman, and will tell you all about it; this is the way the Jadoo-wallahs do;' and he went through the process with great precision, pretty much as I have described it as practised in Bengal. *This man and three other recovered patients, were taught to mesmerize*, and in a few trials subdued their subjects as well as could be desired, and, as a moral discipline, they were required to report upon the conduct of their patients during the day, which they did very satisfactorily every morning. These men, being criminals, have not been discharged, and may be conversed with in the hospital now.

"Dr. Kean, of Berhampore, writes to me that he had

had much more striking success in his Lunatic Asylum, probably owing to more regular superintendence, which is indispensable; for if not done with a *will*, it need not be done at all.

"Dr. Kean says:—'Taking a hasty glance over the years 1847 and 1848, I see that about 74 patients were mesmerized; and that of these, 64 were discharged cured to all appearance, and I think it has been successful in every case of epilepsy.'

"It thus appears, that mesmerism is likely to be as serviceable in the treatment of insanity, as it is in general medicine and the practice of surgery, and I should like extremely to prosecute the subject to the extent it deserves, both for its physical and metaphysical interest; for the physical effects of mesmerism comprise only one half of the subject, and we must be familiar with both the bodily and mental phenomena before we can attempt to reason with any success upon the nature and laws which govern this wonderful vital agent." — *Second Half-Yearly Report of the Calcutta Mesmeric Hospital*, 1849.

G. — (Page 128.)

"If we bear in mind that as no occurrence in the world, so also no phenomena of nature, either in the animal or vegetable kingdom, can appear without standing in relation to, or as the immediate result of, another that has preceded it; (as the present condition of a plant or animal is dependent upon certain preëxisting conditions;) it is clear, that if all the causes that affect one condition, and that influence upon time and space, with their properties, are

known to us, we shall be able to declare what other conditions will succeed the former one. The extreme of these conditions or relations, is what we term a natural law." — *On Investigation pursued according to Physiological Laws, by Justus Liebig.*

"It seems to me that a like degree of empiricism attaches to descriptions of the universe and to civil history; but in reflecting upon physical phenomena and events, and tracing their courses by the processes of reason, we become more and more convinced of the ancient doctrine that the forces inherent in matter and those which govern the moral world, exercise their action under the control of primordial necessity, and in accordance with movements occurring periodically, after longer or shorter intervals." — *Humboldt: Cosmos*, vol. i. p. 30.

H. — (Page 131.)

"Contrary to the wishes and counsels of those profound and powerful thinkers, who have given new life to speculations which were already familiar to the ancients, systems of natural philosophy have in our own country for some time past turned aside the minds of men from the graver study of mathematical and physical sciences. The abuse of better powers, which has led many of our noble but ill-judging youth into the saturnalia of a purely ideal science of nature, has been signalized by the intoxication of pretended conquests, by a novel and fantastically symbolical phraseology, and by a predilection for the formulæ of a scholastic rationalism, more contracted in its views than

any known to the middle ages. I use the expression 'abuse of better powers,' because superior intellects devoted to philosophical pursuits and experimental science have remained strangers to these saturnalia. The results yielded by an earnest investigation in the path of experiment, cannot be at variance with a true philosophy of nature." — *Humboldt: Cosmos, end of Introduction.*

"He who hath not first, and before all, intimately explored the movements of the human mind, and therein most accurately distinguished the course of knowledge and the seats of error, shall find all things masked, and as it were enchanted, and, till he undo the charm, shall be unable to interpret." — *Bacon: Impediments of Interpretation.*

"But men are more disposed to give themselves to speculation than to the painful study of nature. At each step the metaphysicians come in to retard the progress of the naturalists: and in general it is to the metaphysicians that we must attribute the ignorance in which we are still involved respecting the true nature of Man: and this shameful slavery will contiuue so long as we refuse to acquire the details of an organization capable of explaining all the phenomena of sensibility, all the various instincts, propensities and intellectual faculties." — *Gall*, vol. ii. p. 15.

"The understanding, like the eye, whilst it makes us see and perceive all other things, takes no notice of itself: it requires art and pains to set it at a distance, and make it its own object." — *Locke.*

"So that it is not the insufficiency or incapacity of man's mind, but it is the remote standing or placing thereof, that

breedeth these mazes and incomprehensions; for as the sense afar off is full of mistaking, but is exact at hand, so is it of the understanding; the remedy whereof is not to quicken or strengthen the organ, but to go nearer to the object." — *Bacon: Advancement of Learning.*

"For however men may be satisfied with themselves, and rush into a blind admiration and almost adoration of the human mind, one thing is most certain, namely, that as an uneven mirror changes the rays proceeding from objects according to its own figure and position, so the mind, when affected by things through the senses, does not act in the most trustworthy manner, but inserts and mixes her own nature into that of things, whilst clearing and recollecting her notions." — *Bacon: Distribution of the Work.*

"As far as relates to the first notions of the understanding, not any of the materials which the understanding, when left to itself, has collected, are unsuspected by us; nor will we confirm them unless they themselves be put upon their trial and be judged accordingly." — *Ibid.*

"We have at length arrived at the important truth which now seems so very obvious a one, that the mind is to be known best by observation of the series of changes which it presents, and of all the circumstances which precede and follow these; that in attempting to explain its phenomena, therefore, we should know what these phenomena are, and that we might as well attempt to discover, by logic, unaided by observation or experiment, the various colored rays that enter into the composition of a sunbeam, as to discover by dialectic subtilties, *à priori*, the various feelings that enter into the composition of a single thought or passion." — *Dr. Thomas Brown.*

"But when a thing lies still, unless something else stir it, it will lie still for ever, is a truth no one doubts of. But that when a thing is in motion, it will eternally be in motion unless somewhat else stay it, though the reason be the same, (namely, that nothing can change itself,) is not so easily assented to: for men measure not only other men, but all other things, by themselves." — *Hobbes, on Imagination.*

"No one has yet been found possessed of sufficient firmness and severity to resolve upon and undertake the task of entirely abolishing common theories and notions, and applying the mind afresh, when thus cleared and levelled to particular researches. Hence our human reason is a mere farrago and crude mass, made up of a great deal of credulity and accident; and the puerile notions it originally contracted." — *Bacon: Novum Organum, A.* 97.

"It may happen in science, as in building, that an error in the foundation shall weaken the whole, and the further the building is carried on, the weakness shall become more apparent and the more threatening. Something of this kind seems to have happened in our systems concerning the mind." — *Reid.*

I.—(Page 170.)

"It appears but as yesterday; yet, nevertheless, it was at the beginning of the year 1788. We were dining with one of our brethren at the Academy,—a man of considerable wealth and genius. The company was numerous and diversified—courtiers, lawyers, academicians, &c.;

and, according to custom, there had been a magnificent dinner. At dessert, the wines of Malvoisin and Constantia added to the gayety of the guests that sort of liberty which is sometimes forgetful of *bon ton:*—we had arrived in the world, just at that time when any thing was permitted that would raise a laugh. Chamfort had read to us some of his impious and libertine tales, and even the great ladies had listened without having recourse to their fans. From this arose a deluge of jests against religion. One quoted a tirade from the *Pucelle;* another recalled the philosophic lines of Diderot,—

> 'Et des boyaux du dernier prêtre,
> Serrez le cou du dernier roi,'

for the sake of applauding them. A third rose, and holding his glass in his hand, exclaimed, '*Yes, gentlemen, I am as sure that there is no God, as I am sure that Homer is a fool;*' and, in truth, he was as sure of the one as of the other. The conversation became more serious; much admiration was expressed on the revolution, which Voltaire had effected, and it was agreed that it was his first claim to the reputation he enjoyed:—he had given the prevailing tone to his age, and had been read in the ante-chamber, as well as in the drawing-room. One of the guests told us, while bursting with laughter, that his hairdresser, while powdering his hair, had said to him, '*Do you observe, sir, that although I am but a poor miserable barber, I have no more religion than any other.*' We concluded that the revolution must soon be consummated,—that it was indispensable that superstition and fanaticism should give place to philosophy, and we began to calculate the probability of the period when this should be, and which of the present company should live to see the *reign of reason.* The oldest complained that they could scarcely flatter

themselves with the hope; the younger rejoiced, that they might entertain this very probable expectation; — and they congratulated the Academy especially for having prepared this *great work*, and for having been the great rallying point, the centre, and the prime mover of the liberty of thought.

"One only of the guests had not taken part in all the joyousness of this conversation, and had even gently and cheerfully checked our splendid enthusiasm. This was Cazotte, an amiable and original man, but unhappily infatuated with the reveries of the illuminati. He spoke, and with the most serious tone. 'Gentlemen,' said he, 'be satisfied; you will all see this great and sublime revolution, which you so much desire. You know that I am a little inclined to prophecy: I repeat, you will see it.' He was answered by the common rejoinder, '*One need not be a conjurer to see that.*' 'Be it so; but perhaps one must be a little more than conjurer, for what remains for me to tell you. Do you know what will be the consequence of this revolution, — what will be the consequence to all of you, and what will be the immediate result, — the well-established effect, — the thoroughly recognized consequence to all of you who are here present?' 'Ah!' said Condorcet, with his insolent, and half-suppressed smile, 'let us hear, — a philosopher is not sorry to encounter a prophet.' 'You, Monsieur de Condorcet, you will yield up your last breath on the floor of a dungeon; — you will die from poison, which you will have taken, in order to escape from execution, — from poison which *the happiness* of that time will oblige you to carry about your person.'

"At first astonishment was most marked; but it was soon recollected, that the good Cazotte is liable to dreaming, though apparently wide awake, and a hearty laugh is the consequence. 'Monsieur Cazotte, the relation which

you give us is not so agreeable as your Diable Amoureux' — (a novel of Cazotte's.)

"'But what diable has put into your head this prison, and this poison, and these executioners? What can all these have in common with philosophy and the reign of reason?' 'This is exactly what I say to you; it is in the name of philosophy, — of humanity, — of liberty; — it is under the reign of reason, that it will happen to you thus, to end your career; — and it will indeed be *the reign of reason;* for then she will have her temples, and indeed, at that time, there will be no other temples in France than the temples of reason.' 'By my truth,' said Chamfort, with a sarcastic smile, '*you* will not be one of the priests of those temples.' 'I do not hope it; but you, Monsieur de Chamfort, who will be one, and most worthy to be so, you will open your veins with twenty-two cuts of a razor, and yet you will not die till some months afterwards.' They looked at each other, and laughed again. 'You, Monsieur Vicq d'Azir, you will not open your own veins, but you will cause yourself to be bled, six times in one day, during a paroxysm of the gout, in order to make more sure of your end, and you will die in the night. You, Monsieur de Nicolai, you will die upon the scaffold; — you, M. Bailly, on the scaffold; — you, Monsieur de Malesherbes, on the scaffold.' — 'Ah! God be thanked,' exclaimed Roucher, 'it seems that Monsieur has no eye, but for the *Academy;* — of it he has just made a terrible execution, and I, thank heaven' 'You! you also will die upon the scaffold.' 'O, what an admirable guesser!' was uttered on all sides; 'he has sworn to exterminate us all.' 'No, it is not I who have sworn it.' — 'But shall we then be conquered by the Turks or the Tartars? Yet again . . .' 'Not at all; I have already told you, you will then be governed only by philosophy, — only by reason. They

who will thus treat you, will be all philosophers, — will always have upon their lips the selfsame phrases which you have been putting forth for the last hour, — will repeat all your maxims, — and will quote, as you have done, the verses of Diderot, and from La Pucelle.' They then whispered among themselves; — 'You see that he is gone mad;' — for he preserved all this time the most serious and solemn manner. 'Do you not see that he is joking? and you know that, in the character of his jokes, there is always much of the marvellous.' 'Yes,' replied Chamfort, 'but his marvellousness is not cheerful; — it savors too much of the gibbet, — and when will all this happen?' 'Six years will not pass over before all that I have said to you shall be accomplished.'

"'Here are some astonishing miracles,' (and this time, it was I myself who spoke,) 'but you have not included me in your list.' 'But you will be there, as an equally extraordinary miracle; you will then be a Christian.'

"Vehement exclamations on all sides. 'Ah,' replied Chamfort, 'I am comforted — if *we* shall perish only when La Harpe shall be a Christian, we are immortal.'

"'As for that,' then observed Madame la Duchess de Grammont, 'we women, we are happy to be counted for nothing in these revolutions: — when I say for nothing, it is not that we do not always mix ourselves up with them a little, but it is a received maxim, that they take no notice of us, and of our sex.' 'Your sex, ladies, will not protect you this time; and you had far better meddle with nothing, for you will be treated entirely as men, without any difference whatever.' 'But what, then, are you really telling us of, Monsieur Cazotte? — You are preaching to us the end of the world.' 'I know nothing on this subject: but what I do know is, that you, Madame la Duchesse, will be conducted to the scaffold, you and many other ladies with

you, in the cart of the executioner, and with your hands tied behind your backs.' 'Ah! I hope that, in that case, I shall have a carriage hung in black.' 'No, madame; higher ladies than yourself will go *like you* in the common car, with their hands tied behind them.' 'Higher ladies! what! the princesses of the blood?' 'Still more exalted personages.'— Here a sensible emotion pervaded the whole company, and the countenance of the host was dark and lowering: — they began to feel that the joke was become too serious. Madame de Grammont, in order to dissipate the cloud, took no notice of the reply, and contented herself with saying, in a careless tone, — '*You see that he will not leave me even a confessor.*' 'No, madame, you will not have one, neither you, nor any one besides. The last victim to whom this favor will be afforded, will be' He stopped for a moment. 'Well! who will then be the happy mortal, to whom this prerogative will be given?' 'Tis the only one which he will have then retained — and that will be the king of France.'

"The master of the house rose hastily, and every one with him. He walked up to M. Cazotte, and addressed him with a tone of deep emotion: — 'My dear Monsieur Cazotte, this mournful joke has lasted long enough. You carry it too far, — even so far as to derogate from the society in which you are, and from your own character.' Cazotte answered not a word, and was preparing to leave, when Madame de Grammont, who always sought to dissipate serious thought, and to restore the lost gayety of the party, approached him, saying, 'Monsieur the prophet, who has foretold us of our good fortune, you have told us nothing of your own.' He remained silent for some time, with downcast eyes. 'Madame, have you ever read the siege of Jerusalem, in Josephus?' 'Yes! who has not read that! But answer as if I had never read it.' 'Well, then,

madame, during the siege, a man for seven days in succession, went round the ramparts of the city, in sight of the besiegers and besieged, crying unceasingly, with an ominous and thundering voice, *Woe to Jerusalem;* and the seventh time he cried, *Woe to Jerusalem, woe to myself* — and at that moment an enormous stone, projected from one of the machines of the besieging army, struck him, and destroyed him.'

"And, after this reply, M. Cazotte made his bow and retired.

"When, for the first time, I read this astonishing prediction, I thought that it was only a fiction of La Harpe's, and that that celebrated critic wished to depict the astonishment which would have seized persons distinguished for their rank, their talents, and their fortune, if, several years before the revolution, one could have brought before them the causes which were preparing, and the frightful consequences which would follow. The inquiries which I have since made, and the information I have gained, have induced me to change my opinion. M. le Comte A. de Montesquieu, having assured me that Madame de Genlis had repeatedly told him that she had often heard this prediction related by M. de La Harpe, I begged of him to have the goodness to solicit from that lady more ample details. This is her reply: —

"'November, 1825.

"'I think I have somewhere placed, among my *souvenirs*, the anecdote of M. Cazotte, but I am not sure. I have heard it related a hundred times by M. de La Harpe, before the revolution, and always in the same form as I have met with it in print, and as he himself has caused it to be printed. This is all that I can say, or certify, or authenticate by my signature. — COMTESSE DE GENLIS.'

"'I have also seen the son of M. Cazotte, who assured

me that his father was gifted in a most remarkable manner, with a faculty of pre-vision, of which he had numberless proofs; one of the most remarkable of which was, that on returning home on the day on which his daughter had succeeded in delivering him from the hands of the wretches who were conducting him to the scaffold, instead of partaking the joy of his surrounding family, he declared that in three days he should be again arrested, and that he should then undergo his fate; and in truth he perished on the 25th of Sept. 1792, at the age of 72.'

"In reference to the above narrative, M. Cazotte, jun., would not undertake to affirm that the relation of La Harpe was exact in all its *expressions*, but had not the smallest doubt as to the reality of the *facts*.

"I ought to add, that a friend of Vicq d'Azir, an inhabitant of Reimes, told me, that that celebrated physician, having travelled into Brittany some years before the revolution, had related to him, before his family, the prophecy of Cazotte. It seemed that notwithstanding his scepticism, Vicq d'Azir was uneasy about this prediction.

"Letter on this subject addressed to M. Mialle by M. le Baron Delamothe Langon: —

"'You inquire of me, my dear friend, what I know concerning the famous prediction of Cazotte mentioned by La Harpe. I have only on this subject to assure you *upon* my honor that I have heard Madame le Comtesse de Beauharnais many times assert that she was present at this very singular historical fact. She related it always in the same way, and with the accent of truth; — her evidence fully corroborated by that of La Harpe. She spoke thus, before all the persons of the society in which she moved, many of whom still live, and could equally attest this assertion.

"'You may make what use you please of this communication.

"'Adieu, my good old friend. I remain with inviolable attachment, yours,

"'Baron Delamothe Langon.

"'Paris, Dec. 18th, 1833.'"

— *La Harpe: Posthumous Memoirs*, Paris, 1806, vol. i. p. 62.

A FEW PASSAGES FROM THE LIFE OF JOAN OF ARC.

"On the 12th of February, 1428, on which the disastrous battle of Rouvray-Saint-Denis was fought, Joan said to M. Robert de Baudricourt, Governor of Vaucouleurs, that the king had suffered great losses before Orleans, and would experience further losses unless she were sent to him. The exactitude of this announcement determined Baudricourt to send her.

"The next day, on her departure, many persons asked Joan how she could possibly undertake this journey, since the whole country was overrun with soldiers: she answered that she should find the way clear. No accident happened to her, nor to those who accompanied her, and even very few difficulties during the whole journey, which lasted eleven days, through an enemy's country, at the close of winter, over a distance of one hundred and fifty leagues, and intersected by several deep rivers.

"On the 27th of February, when she was about to be presented to the king, a man on horseback who saw her passing, employed some blasphemous expressions. Joan heard him, and turning her head, said, 'Ha, dost thou blaspheme the name of God, and yet so near to death?' In about an hour afterwards, this man fell into the water, and was drowned.

"The following month Joan informed the doctors, who were commissioned to examine her at Poictiers: —

"1. That the English would be beaten; that they would

raise the siege of Orleans; and that this city would be delivered from the said English;

"2. That the king would be consecrated at Reims;

"3. That the city of Paris would be restored to its loyalty;

"4. That the Duke of Orleans would return from England.

"The king, in council, having determined to send Joan to Orleans, they commissioned her to conduct a convoy of provisions of which the place stood in the greatest need. It was observed to her, that it would be a difficult enterprise, considering its fortifications, and the English besiegers, who were strong and powerful. 'By the help of my God,' answered she, 'we will put them into Orleans easily and without any attempt to prevent us on the part of the English.'

"The generals of Charles VII. not daring to take the route which Joan had pointed out to them, the convoy was obliged to halt at some leagues from Orleans, from the want of water, and from adverse winds. Every body was confounded and in grief; but Joan announced that the wind would soon change, and that the provisions would be easily thrown into the town, in spite of the English: all which was completely verified.

"The English retained one of the heralds whom Joan had sent to summon them to surrender;—they even wished to burn him alive;—and they wrote to the university of Paris to consult upon the subject: Joan assured them, that they would do him no harm.

"When Joan appeared on the redoubt, called the boulevard de la Bella-Croix, to summon them to raise the siege, these loaded her with abuse, especially one of the officers, to whom Joan replied, 'that he spoke falsely, and in spite of them all they would soon depart; but

that he would never see it, and that many of his people would be killed.' In fact, when the fort of Tournelles was taken, this officer wished to make his escape by the bridge which separated the fort from the suburbs; but an arch gave way beneath his feet, and he, with all his men, were drowned.

"Having introduced the convoy of provisions and ammunition into Orleans, Joan foretold to the inhabitants, that in five days not an Englishman would remain before their walls.

"On the 6th of May, Joan informed her confessor, that on the next day she should be wounded above the bosom, while before the fort at the end of the bridge. And in fact she received a lance between the neck and the shoulder, which passed out nearly a half a foot behind the neck.

"On the morning of the 7th, her host having invited her to partake of some fish which had been brought him, she desired him to keep it till night, because she would then bring him a stranger who would do his part in eating it. She added, that after having taken the Tournelles, she would repass the bridge,—a promise which seemed impossible to any body, — but which nevertheless was fulfilled, like all the other impossibilities.

"The irresolution of the king was the greatest punishment to Joan: 'I shall only continue for a year, and a very little more,' said she; 'I must try to employ that year well.'

"The Duchesse d'Alençon was greatly alarmed, on seeing her husband at the head of the army, which was about to enforce the coronation of the king at Reims. Joan told her to fear nothing, — that she would bring him back safe and sound, and in a better condition than he was at that moment.

"At the attack of Jargean, the Duc d'Alençon was attentively reconnoitring the outworks of the town, when Joan told him to remove from the spot on which he was standing, or that he would be killed by some warlike missile. The duke removed, and almost immediately afterwards, a gentleman of Anjou, by the name of M. de Lade, was struck in the very place which the duke had just left.

"The English generals, Talbot, Searles, and Falstaff, having arrived with four thousand men to the relief of the Castle of Beaugenie, in order to raise the siege of that place, Joan predicted that the English would not defend themselves — would be conquered — and that this triumph would be almost bloodless on the part of the royal army — and that there would be *very few* — not quite to say *no one* — killed of the French combatants. In truth, they lost but *one man*, and almost all the English were killed or taken.

"Joan had told the king not to fear any want of troops for the expedition to Reims, — for that there would be plenty of persons, and many would follow him; in truth, the army increased visibly from day to day, and numbered twelve thousand men by the end of June, 1429.

"When the army had arrived before Troyes, that city shut its gates, and refused to yield. After five days' waiting, and useless efforts of capitulation, the majority of the council advised to return to Gien; but Joan declared that in less than three days she would introduce the king into the city by favor or by force. The chancellor said that they would even wait six days if they could be sure of the truth of her promises. 'Doubt nothing,' said she — 'you will be master of the city *to-morrow*.' Immediately preparations were made for the projected assault, which so alarmed the inhabitants and their garrison, that they capitulated next day.

"Charles feared that the city of Reims would oppose a long resistance to its siege, and that it would be difficult to make himself master of it because he was deficient in artillery. 'Have no doubt,' said Joan, 'for the citizens of the town of Reims will anticipate you. Before you are come to the city, the inhabitants will surrender.' On the 16th of July, the principal inhabitants of the city laid its keys at the feet of the king.

"During her captivity, Joan made the following predictions in the 1st of March 1430, in the presence of fifty-nine witnesses, whose names are given faithfully by M. le Brun de Charmettes: 'Before seven years are past, the English will abandon a larger prize than they have done before Orleans, and will lose every thing in France.

"'They will experience the severest loss they have ever felt in France:—and this will be by a great victory which God will bestow upon the French.'

"Paris was actually retaken by the French under the command of the Marshal de Richemont and the Count de Dunois on the 14th of April, 1436.

"As to the great victory which should prove so fatal to the English, M. le Brun thinks may be understood, either the battle of Tormigny, gained by the French in 1450, and which resulted in the conquest of Normandy,—or the battle of Castillon, fought in 1452, in which the renowned general Talbot perished, and which completed the submission of la Guinne to France.

"In order to explain the expression, *will lose every thing in France*, the same author recalls the fact, that the people in general restricted the term France to what had originally composed the immediate dominion of Hugo Capet and his successors, as l'Isle de France, l'Orléannais, le Berri, la Touraine, &c. Thus Joan of Arc, born at Domremy, at the extremity of la Champagne, said that Saint Michel had ordered her to go into France."

K.—(Page 172.)

"The process of condensation, which formed a part of the doctrine of Anaximenes, and of the Ionian School, appears to be going on before our eyes. This subject of investigation and conjecture is especially attractive to the imagination, for in the study of the animated circles of Nature, and of the action of all the moving forces of the universe, the charm that exercises the most powerful influence on the mind is derived less from a knowledge of that which is, than from a perception of that which will be, even though the latter be nothing more than a new condition of a known material existence; for of actual creation, of origin, of beginning of existence from non-existence, we have no experience, and can therefore form no conception." — *Cosmos: Humboldt, on Celestial Phenomena.*

"Wrongly do the Greeks suppose that aught begins or ceases to be; for nothing comes into being or is destroyed; but all is an aggregation or secretion of preëxistent things; so that 'all becoming' might more correctly be called 'becoming mixed,' and all corruption 'becoming separate.'"— *Anaxagoras.*

"Fools! who think aught can begin to be, which formerly was not. Or that aught which is, can perish and utterly decay. Another truth I can unfold; no natural birth is there of mortal things; nor death, destruction final; nothing is there but a mingling, and then a separation of the mingled, which are called a birth and death by ignorant mortals." — *Empedocles.*

"The world was made neither by god or man; and it was, and is, and ever shall be, an ever-living fire in due measure self-enkindled, and in due measure self-extinguished." — *Heraclitus*

L. — (Page 172.)

"Where then shall we find proofs of the mind's influence on the bodily structure? of that mind which, like the corporal frame, is infantile in the child, manly in the adult, sick and debilitated in disease, frenzied or melancholy in the madman, enfeebled in the decline of life, doting in decrepitude, and annihilated by death." — *Lawrence.*

"Such as to each man is the nature of his many-jointed limbs,
Such also is the intelligence of each man; for it is
The nature of limbs (organization) which thinketh in men,
Both in one, and in all; for the highest degree of organization gives
The highest degree of thought." — *Parmenides.*

"Thought is the same thing as the cause of thought:
For without the thing in which it is announced
You cannot find the thought;
For there is nothing, nor shall be,
Except the existing." — *Ibid.*

"But in proportion as certain observers arrived at the knowledge of the properties of bodies, they abandoned these external agents. Already Empedocles, Leucippus,

Democritus, the school of Hippocrates, the Stoics, Heraclides, Epicurus, Asclepiades, Archigenes, Lucretius, Aretæus, regarded life and all its operations as an effect of organization." — *Gall*, vol. ii. p. 14.

"The natural philosophy of Democritus and some others, (who did not suppose a mind or reason in the frame of things, but attributed the form thereof able to maintain itself, to infinite essays or proofs of nature which they term fortune,) seemeth to me, as far as I can judge by the recital and fragments which remain unto us, in particularities of physical causes, more real and better inquired than that of Aristotle and Plato; whereof both intermingled Final Causes; the one as a part of theology, the other as a part of logic, which were the favorite studies respectively of both those persons." — *Bacon: Advancement of Learning.*

"For although the greatest generalities in nature must be positive, just as they are found, and, in fact, *not causable*, yet the human understanding, incapable of resting, seeks for something more intelligible. This, however, whilst aiming at further progress, it falls back to what is actually less advanced, namely, Final Causes; for they are clearly more allied to man's own nature than the system of the universe; and from this source they have wonderfully corrupted philosophy." — *Bacon: Nov. Org.*, *A.* 48.

M. — (Page 175.)

Hobbes says of Harvey, "He is the only man I know, that, conquering envy, hath established a new doctrine in

his lifetime," — and yet twenty-five years elapsed before this was accomplished. And at Harvey's death, no physician in Europe, above the age of forty, believed in his discovery.

"The persecution of Harvey appears to have been prompted only by the mean passions of his contemporaries. No other motive is obvious; for it is difficult to see in what way 'the craft' was endangered. In this case, however, as in many others, it almost appeared as if men had some strong personal interest in keeping back the truth, so eagerly did they exert themselves to resist it." — *Chambers's Journal*, vol. vi. p. 41.

"Facts," says Sir C. Bell, "have been denied with a heat and pertinacity which I can never understand.

"Whatever may be thought of the reasoning pursued in this volume, the facts admit of no contradiction: and, perhaps hereafter, curiosity may be excited, to know in what manner they were first received. The gratification in the inquiry has been very great; the reception by the profession has been the reverse of what I expected. The early announcement of my occupation failed to draw one encouraging sentence from medical men. When the publication of these papers by the Royal Society made it impossible to overlook them altogether, the interest they excited drew countenance on those who opposed them, or who pretended to have anticipated them. To myself this has ceased to be of any consequence; but I confess, I regret to leave those young men who have honorably and zealously assisted me in these inquiries, in the delusive hope of laboring to the gratification of their own profession. The pleasure arising from the pursuit of natural knowledge, and the society of men of science, must be

their sufficient reward." — *Sir C. Bell's Preface to "The Nervous System,"* 1830.

"Democritus, the father of experimental philosophy, declared that he would prefer a discovery of one great cause of the works of nature to the diadem of Persia. He was accused of insanity; and Hippocrates was ordered to inquire into the nature of his disorder. The physician had a conference with the philosopher, and declared that not Democritus, but his enemies, were insane." — *Bacon: Holy War.*

"Not the feeblest grandam, not the mowing idiot, but uses what spark of perception and faculty is left to chuckle and triumph in his or her opinion over the absurdities of all the rest. Difference from me is the measure of absurdity; but one has a misgiving of being wrong." — *Emerson.*

"But if any one be influenced by an inveterate uniformity of opinion, as though it were the decision of time — let him learn that he is relying on a most fallacious and weak argument." — *Bacon: Preface to Instauration.*

"Touching the operation upon the spirits, that they remain youthful, and renew their vigor, — thus much: which we have done more accurately, for that there is, for the most part, among the physicians, and other authors, touching these operations, a deep silence." — *Bacon: History of Life and Death.*

"And even should the odium I have alluded to be avoided, yet it is sufficient to repress the increase of science that such attempts and industry pass unrewarded.

For the cultivation of science and its rewards belong not to the same individual. The advancement of science is the work of a powerful genius; the prize and reward belong to the vulgar, or to princes who (with a few exceptions) are scarcely moderately well informed. Nay,—such progress is not only deprived of the rewards and beneficence of individuals, but even of popular praise: for it is above the reach of the generality, and easily overwhelmed and extinguished by the winds of common opinion. It is not wonderful, therefore, that little success has attended that which has been little honored."—*Bacon: Nov. Org., Aph.* 91, Part I.

N.—(Page 176.)

"In the progress of time I was declared old enough to be initiated into the mysteries of the Christian faith, and sanctified by my first participation in the sacrament of the Lord's Supper. Whether I was fit for the holy ceremony was never asked at all. The Christianity of our enlightened Europe is for the most part mere matter of ceremony and habit, and the present representatives of the Apostles among our Christian congregations, trouble themselves often about little else than their own emoluments and dignities, while professing to be called to their holy office by a divine spirit."—*Life of Zschokke*, p. 13.

"(At Havre) I found it no easy matter to procure a passage for my Mulatto charge on board an American ship: nearer intercourse with him was thought offensive. When I took the boy with me to the *table d'hôte* in the evening,

an American captain was about to quit the table in disgust, if his own wife had not prevented the commission of this folly! The arrogant contempt of these Republicans for their colored fellow-creatures is known to all the world. Europeans justly think this prejudice ridiculous or revolting; yet, with all their supposed freedom from similar prejudices, they find the difference between noble and ignoble blood, and belief in degradation through unequal marriages, as they are called, neither one nor the other. Do they stand one inch higher above the slough of middle-age prejudice than the Americans? In sad and sober earnest, our Europeans and Americans, so proud of their mental culture, their art, their science, and their Christianity, seem to me, with their smooth moral pretences, without morality; their systematized human slaughter, their justice-defying state maxims, not much wiser or more Christian than the world of heathen Athens and Rome, 2000 or 3000 years ago!" — *Life of Zschokke*, p. 191.

O. — (Page 177.)

What a satire upon theology is the history of all faiths, and the ill feeling and confusion arising from the conflicts of opinion going on at this moment! such disagreements among the professors being proof sufficient of fundamental error and delusion — the badge of false science, as Bacon has it. There are as many shepherds as sheep; and where every one is tinkling his little bell, in what direction should a poor fellow turn, who would willingly give up his conscience and his reason to be saved by the true specific? Truly, in this age, a man may well be

puzzled to know where to go to get either his body or his soul healed; and if in this dilemma you venture to think for yourselves, the whole host — sheep, shepherds, and all — come at you like a pack of wolves. And there is no peace for a thinking man or a suffering one, but in silence, or the common resource — hypocrisy. And, after a trial of thousands of years, where is the evidence of those fruits which the world has been promised, as the sure and only evidence of the true doctrine and inspired faith? Where are we to look for purity, and peace, and good fellowship? Have not the praiseworthy efforts of the Peace advocates been ridiculed on all sides? "More Bibles," and "more churches," is the constant and ineffectual cry of the churchmen; — whilst the legislator, seeing no chance of improvement by these or any other means he can devise, looks to his armies, and his ships, and his police force, and Acts of Parliament, as the only means of securing quiet and protection for society. Barbarians all! for how shall we rule nature, except by obedience to the laws of nature? And who, of our legislators or bishops, pretend to know these laws, or ever appeal to them, or even acknowledge their existence? Yet, except by the knowledge of nature's laws in the constitution of Man, how can we exhibit any certain means of ameliorating his condition? What use the sumptuous ceremonies of the church and court, the gabbling of creeds and the bowing of heads, and bending of knees — the standing up for one prayer, the sitting down for another; first in one pulpit, then in another a little lower — then at the altar; now in one dress, now another — with all the hubbub about inessentials, stupid paraphernalia, and lifeless ceremonies, taking much more heed of what clothes shall be put on than of the truth which should be naked and without covering at all; — in the name of common sense, what is it

all worth if we do not accomplish the well being of mankind? The little that is known of Man's nature is not acted upon, or is used against him. We boast of our breeds of cattle and our dogs — of our tulips and our fine geraniums — of the gas lightings and the steam engine, and pass ourselves by, "and the passions which govern all the rest are themselves ungoverned," and the understanding without law.

The only way to clear the mind of doubt or from confusion, is by drawing closer to the object, and to the material conditions. Men have deserted the substance for the shadow — we must draw them back again from the shadow to the substance. Theologians can hardly tolerate one another, except in the supposition that they *may all* be wrong. But let no one suppose, for a moment, that I wish to uproot the faculty of reverence and love, and true humility, or that I desire to cast a blight upon the pure and even prayerful aspirations towards infinite excellence and wisdom, acknowledging those higher truths beyond our understanding, and the reach of our senses; for there is a holy temple in the heart and understanding where each may worship according as his feelings, his understanding, and his conscience dictates; and in lonely hours, from the promptings of that still small voice, acknowledging cheerfully the divine rule of the God of nature, shall we seek to attain to holier thought and purer aspirations. All that I desire is from the temple of the true God to cast out a trading theology, selfish and false theories, hypocrisy and the worship of images and idols of all descriptions — whether in the form of man or beast, or other thing existing upon the face of the earth or in the water under the earth. I would destroy the worship of gold, of power, of life, nor acknowledge any capricious, lawless rule in the "web of fate." No, the hard atheistical philosophy of

mere sense reason and "human wisdom" is not my philosophy — that "philosophy which is not harsh and crabbed as dull fools suppose, but musical as is Apollo's lute." All nature is miraculous — man is a miracle to himself, and his mind a perpetual revelation, on, and on, and on, in the march of time. If Christ could now view the systems which have arisen from his life, he would wish that he had never been born, so strange has the perversion been, and so strange the contradictory interpretations. We must become again as little children, and learn — not from the Bible of man, erroneously supposed divine, but from the Bible of God, which is nature — a language and revelation unchangeable and universal; but whilst men speak irreverently of matter and slightingly of nature, are they not degraded by falsehood, and to be born again ere they can appreciate high things? It is true, that I see no evidence of a future life, and I desire to see men raised above the want, believing with the pious and excellent Zschokke that it is a higher moral condition to live without such a hope; but I would not diminish one happy and good impulse when consistent with truth, but let the whole man and *all* his powers be freely and fully developed. Like the little moth at the candle, the child man is ever fluttering in his hope that he may touch the light of infinity, and fearing lest he be cast back into darkness. Under the influence of damp and darkness, a man desires life and continued existence, a passing from infinite night to infinite day. When under the influence of high and elevating joy, and a bright atmosphere — when in our true normal and best condition — we are ready to die and melt away into the form and nature of the light and beauty with which we are surrounded; but the understanding and "spiritual" being is clouded by a depressing theology and vulgar notions. What Englishman will believe you, that the close

stove of Russia is more agreeable and healthful than our bright-blazing, open fires? but such is the fact. Nor will men easily loosen from their errors, and enter the temple of nature, and of the God of nature, which is, that infinite cause in nature, eternal, omnipresent, and without change — the principle of matter and of the properties of matter, motion, and the mind of matter, but neither matter, nor property, nor mind. What it is, is beyond our comprehension, and folly to suppose. The finite cannot grasp the infinite, nor phenomena a cause.

P. — (Page 180.)

CURATIVE POWER OF GREATRAKES.

"The seventeenth and early part of the eighteenth centuries present us with several examples of private persons, who were supposed to have a miraculous power of curing by touch. The most celebrated was a Mr. Valentine Greatrakes, a Protestant gentleman of the county of Waterford, born in 1628 — a thoroughly sound Christian and good man, and occupying a highly respectable place in society. It was some time after the Restoration, while acting as clerk of the peace to the county of Cork, that Mr. Greatrakes first arrived at a conviction of his possession of healing powers. In an account of himself, which he wrote in 1666, he says, 'About four years since, I had an impulse which frequently suggested to me that there was bestowed on me the gift of curing the king's evil, which, for the extraordinariness thereof, I thought fit to conceal for some time; but at length I told my wife; for, whether sleeping

or waking, I had this impulse; but her reply was, that it was an idle imagination. But to prove the contrary, one William Maher, of the parish of Lismore, brought his son to my wife, who used to distribute medicines in charity to the neighbors; and my wife came and told me, that I had now an opportunity of trying my impulse, for there was one at hand that had the evil grievously in the eyes, throat, and cheeks; whereupon I laid my hands on the places affected, and prayed to God, for Jesus' sake, to heal him. In a few days afterwards, the father brought his son with the eye so changed, that the eye was almost quite whole; and to be brief (to God's glory I speak it), within a month he was perfectly healed, and so continues.'

"Another person, still more afflicted, was soon after cured by Mr. Greatrakes in the same manner; and he then began to receive an 'impulse,' suggesting that he could cure other diseases. This he soon had an opportunity of proving, for 'there came unto me a poor man, with a violent pain in his loins, that he went almost double, and having also a grievous ulcer in his leg, very black, who desired me, for God's sake, to lay my hands on him; whereupon I put my hands on his loins and flank, and immediately went the pains out of him, so that he was relieved, and could stand upright without trouble; the ulcer also in his leg was healed; so that, in a few days, he returned to his labor as a mason.'

"He now became extensively known for his gift of healing, and was resorted to by people from greater distances, with the most of whom he was equally successful. Wounds, ulcers, convulsions, and dropsy, were among the maladies which he cured. In an epidemic fever he was also eminently successful, healing all who came to him. So great was the resort to his house, that all the outhouses connected with it were usually filled with patients, and he became so much

engaged in the duty of healing them, as to have no time to attend to his own affairs, or to enjoy the society of his family. The clergy of the diocese at length took alarm at his proceedings, and he was cited by the Dean of Lismore before the Bishop's Court, by which he was forbidden to exercise his gift for the future — an order which reminds us of the decree of Louis XIV., commanding that no more miracles should be performed at the tomb of the Abbé Paris. Mr. Greatrakes, nevertheless, continued to heal as formerly, until his fame reached England. In August, 1665, he received a visit from Mr. Flamstead, the astronomer, who was afflicted with a constitutional weakness; but he failed in this case. Early in the ensuing year, he went to England for the purpose of curing the Viscountess Conway of an inveterate headache, in which also he failed. But, while residing at Ragley, with the Conway family, he cured many hundreds afflicted with various diseases. Lord Conway himself, in a letter to his brother, thus speaks of the healer: 'I must confess, that before his arrival, I did not believe the tenth part of those things which I have been an eye-witness of; and several others, of as accurate judgment as any in the kingdom, who are come hither out of curiosity, do acknowledge the truth of his operations. This morning, the Bishop of Gloucester recommended to me a prebend's son in his diocese, to be brought to him for a leprosy from head to foot, which hath been judged incurable above ten years, and in my chamber he cured him perfectly; that is, from a moist humor, it was immediately dried up, and began to fall off; the itching was quite gone, and the heat of it taken away. The youth was transported to admiration. After all, I am far from thinking that his cures are at all miraculous. I believe it is by a *sanative virtue* and a *natural efficiency*, which extends not to all diseases, but is much more

proper and effectual to some than to others, as he doth also despatch some with a great deal of ease, and others not without a great deal of pains.'

"He was now invited by the king to come to London; whither he accordingly proceeded; and as he went along through the country, we are told that the magistrates of cities and towns begged of him that he would come and cure their sick. The king, though not fully persuaded of his wonderful gift, recommended him to the notice of his physicians, and permitted him to do all the good he pleased in London. He went every day to a particular part of the city, where a prodigious number of people, of all ranks, and of both sexes, assembled. The only visible means he took to cure them, was to stroke the parts affected. The gout, rheumatism, and other painful affections, were driven by his touch from one part to another, until he got them expelled at the very extremities of the body, after which the patient was considered as cured. Such phenomena could not fail, in the most superstitious era of our history, to excite great wonder, and attract universal attention. The cavalier wits and courtiers ridiculed them, as they ridiculed every thing else that appeared serious. St. Evremond, then at court, wrote a sarcastic novel on the subject, under the title of the Irish Prophet. Others, including several of the faculty, defended him. It even appears that the Royal Society, unable to refute the facts, were compelled to account for them as produced by 'a sanative contagion in Mr. Greatrake's body, which had an antipathy to some particular diseases, and not to others.' They also published some of his cures in their Transactions. A severe pamphlet by Dr. Lloyd, chaplain of the Charter-House, caused Mr. Greatstakes at this time to publish the account of himself which has been already quoted. In it, he says, 'Many demand of me why some are cured, and not all.

To which question I answer, that God may please to make use of such means, by me, as shall operate according to the dispositions of the patient, and therefore cannot be expected to be alike efficacious in all. They also demand of me why some are cured *at once* and not all? and why the pains should fly immediately out of some, and take such *ambages* in others? and why it should go out of some at their eyes, and some at their fingers, some at their ears or mouths? To which I say, if all these things could have a *plain* account given of them, there would be no cause to count them strange. Let them tell me what substance that is which removes and goes out with such expedition, and it will be more easy to resolve their questions. Some will know of me why or how I do pursue some pains from place to place till I have chased them out of the body, by laying my hands on the outside of the clothes only (as is usual), and not *all* pains? To which I answer, that — and others have been abundantly satisfied that it is so — though I am not able to give a reason, yet I am apt to believe there are some pains which afflict men after the manner of evil spirits, which kind of pains cannot endure my hand, nay, not my gloves, but fly immediately, though six or eight coats or cloaks be put between the person and my hand, as at the Lady Ranelagh's at York House in London, as well as in Ireland, has been manifested. Now, another question will arise, whether the operation of my hand proceeds from the temperature of my body, or from a divine gift, or from both. To which I say, that I have reason to believe that there is some extraordinary gift of God.' At the end of his narrative are appended a number of certificates as to his cures, signed by the most respectable, pious, and learned persons of the day, amongst whom are the Honorable Robert Boyle, Bishop Rust, Dr. Cudworth, Dr. Patrick, Dr. Whichcot, and Dr. Wilkins. In

1667, he returned to Ireland, where he lived for many years, but without sustaining his reputation for curing. It appears, however, that, upon the strictest inquiry, no blemish could ever be found to attach to the character of this extraordinary man. All he did was done in a spirit of pure piety and benevolence. The truth of the impressive words with which he concludes his own narrative was never challenged — 'Whether I have done my duty as a Christian, in employing that talent which God had entrusted me withal, to the good of people distressed and afflicted, or no, judge you and every good man. Thus far I appeal to the world whether I have taken rewards, deluded or deceived any man. All further I will say is, that I pray I may never be weary of well doing, and that I may be found a faithful servant when I come to give up my last account.'" * — *Chambers's Journal*, No. 314.

Besides Greatrakes, there was De Loutherbourg, the well-known painter: Gassner, a Roman Catholic priest in Swabia: and an English gardener, named Levret, who used to say that so much virtue went out of him that he

* "Mr. Southey, in his 'Omniana,' quotes some curious passages respecting Greatrakes, from a contemporary writer, Henry More. It seems to have been More's opinion that there may be a sanative and healing contagion, as well as a morbid and venomous. He states that Greatrake's hand had 'a sort of herbous, aromatic scent,' and that he could also cure by his spittle. More was not surprised by the cures of Greatrakes, having, ten years before, seen 'one Coker,' who, 'by a very gentle chafing or rubbing of his hand,' cured diseases, but not so many as Greatrakes, who was successful, he says, in 'cancers, scrofulas, deafness, king's evil, headache, epilepsy, fevers, (though quartan ones,) leprosy, palsy, tympany, lameness, numbness of limbs, stone, convulsions, phthisic, sciatica, ulcers, pains of the body, nay, blind and dumb in some measure, and I know not but he cured the gout.' More, at the same time, states, that 'he did not succeed in all his applications, nor were his cures always lasting.'"

was more exhausted by touching thirty or forty people than by digging eight roods of ground. — *H. G. A.*

" In almost every canton of Switzerland are found persons endowed with the mysterious natural gift of discovering, by a peculiar sensation, the existence of subterranean waters, metals, or fossils. I have known many of them, and often put their marvellous talents to the proof. One of these was the Abbot of the Convent of St. Urban, in the Canton of Lucerne, a man of learning and science; and another, a young woman, who excelled all I have ever known. I carried her and her companion with me through several districts entirely unknown to her, but with the geological formation of which, and the position of its salt and sweet waters, I was quite familiar, and I never once found her deceived. The results of the most careful observation have compelled me at length to renounce the obstinate suspicion and incredulity I at first felt on this subject, and have presented me with a new phase of nature, although one still involved in enigmatical obscurity. To detail circumstantially every experiment I made to satisfy myself on the point, would take up too much space at present; but I think it right to mention some of the causes which have led me occasionally to vary from others in my views of nature and of God." — *Life of Zschokke*, p. 143.

La Physique Occulte, ou Traité de la Baguette Divinatoire, par M. L. L. de Vallemont, M. D., &c.

" On the 5th of July, 1692, a dealer in wine and his wife residing at Lyons were murdered in a cellar, for the sake of robbing them of a sum of money kept in a shop hard by, which was at the same time their chamber. All

this was executed with such promptitude and secrecy that no one had witnessed the crime, and the assassins escaped.

" A neighbor, struck with horror at the enormity of the crime, having remembered that he knew a man named Jacques Aymar, a wealthy peasant, who could follow the track of thieves and murderers, induced him to come to Lyons, and introduced him to the king's attorney general. This peasant assured the functionary that if they would lead him to the place where the murder was committed, in order that he might receive from it a certain influence, he would assuredly trace the steps of the guilty parties, and would point them out wherever they were. He added, that for his purpose he should make use of a rod of wood, such as he was in the habit of using to find springs of water, metals, and hidden treasure. The man was conducted to the cellar where the murders were committed. There he was seized with emotion; his pulse rose as if he were suffering from a violent fever, and the forked rod which he held in his hands turned rapidly over the two places where the murdered bodies had lain.

" Having received the impression, Aymar, guided by his rod, passed through the streets through which the assassins had fled. He entered the courtyard of the archbishop's palace. Arriving at the gate of the Rhone, which was shut, it being night, he could then proceed no further. The next day he went out of the town by the bridge of the Rhone, and, always guided by the rod, he went to the right along the bank of the river. Three persons, who accompanied him, were witnesses that he sometimes recognized the tracks of three accomplices, and that sometimes he found only two. In this uncertainty he was led by the rod to the house of a gardener, where he was enlightened as to the number of the criminals. For, on his arrival, he main-

tained that they had touched a table, and that of three bottles which were in the room, they had touched one, over which the rod visibly rotated. In short, two boys of nine and ten years of age, who, fearing their father's anger, had at first denied the fact, at last acknowledged that three men, whom they described, had entered the house, and had drunk the wine which was contained in the bottles indicated by the peasant. As they were assured by the declaration of the children, they did not hesitate to go forward with Aymar, half a league lower than the bridge on the bank of the Rhone. All along the bank for this distance the footsteps of the criminals were traced. Then they must have entered a boat. Aymar followed in another on their track as clearly by water as by land; and his boat was made to go through an arch of the bridge of Vienne, which is never used, upon which it was concluded that these wretches had no boatman, since they wandered out of their way.

"On the voyage, Aymar went ashore at all the places where the fugitives had landed, went straight to their coverts, and recognized, to the great surprise of the hosts and spectators, the beds on which they had slept, the tables on which they had eaten, and the pots and glasses they had touched.

"He arrived at the camp of Sablon, where he was considerably agitated. He believed that in the crowd of soldiers he should find the murderers. Lest the soldiers should ill-treat him, he feared to operate with his rod. He returned to Lyons, whence they made him go back to the camp of Sablon by water, having furnished him with letters of recommendation. The criminals were no longer to be found there. He followed them to the fair of Beaucaire, in Languedoc, and always remarked, in his course, the beds, the tables, the seats, where they had been.

"At Beaucaire, the rod conducted him to the gate of a prison, where he was positive one of the wretches would be found. Fourteen of the prisoners were paraded before him, and the rod turned on a man with a humped back, who had been sent to the prison about one hour before for a petty larceny. The peasant did not hesitate to declare his conviction that the humpbacked man was one of the assassins; but he continued to search for the others, and found that they had gone towards Nismes. No more was done at that time. They transferred the humpbacked man to Lyons. On the journey he asseverated his innocence; but finding that all the hosts, at whose inns he had lodged, recognized him, he avowed that he had been the servant of two men of Provence who had engaged him to join them in this foul deed: that these men had committed the murder, and had taken the money, giving him but six crowns and a half from their booty of one hundred and thirty crowns. He corroborated the accuracy of the indications of the peasant as to the gardener's house, the camp of the Sablon, the fair of Beaucaire, and the other places through which the three had passed, extending over forty-five French leagues. All these things, of course, excited immense interest. At Lyons, many repetitions of the observations respecting the turning of the rod in the cellar were made in presence of many persons. Monsieur l'Abbé Bignon gives his testimony to the truth of the statement of facts, in a letter inserted by Vallemont in his work. There can be no doubt that such statements require very strong corroboration, and here they apparently obtain it. Vallemont, quoting the authority of the Royal Society of London, in the second part of the history, seventeenth section, one hundred and twenty-fifth page, says, that in all countries where men are governed by laws, the testimony in a matter of life and death, of only two or three

witnesses, is required: but is it, then, treating an affair of physics equitably, when the concurrence of sixty or a hundred persons is insufficient? It is difficult to define the just boundaries of credulity; but in all these recitals of histories of events, there is this general consent, that in those who can make use of the rod, there is always an agitation, a fever, or some sensation which indicates a nervous commotion; and the best evidence of the closest investigation goes to the point that most frequently the rod is of hazel wood. How far these stories tend to the conclusion that organic tests appear to require the reagencies of organic force is, at present, a matter of speculation; but it is to be hoped, that the effort to attract serious attention to this class of facts is not uninteresting or unimportant."

Q. — (Page 181.)

Mr. Sandby, in supporting his belief that the reputed scripture miracles are matters wholly beyond the powers of nature, and, consequently, that a faith in them need not be shaken by a full recognition of the facts of mesmerism, says, "Thus was it with astronomy, with chemistry, with geology. The Bible speaks of the rising of the sun, but Copernicus and Galileo were charged with upsetting the Bible, for they proved that the sun was the centre of its system, and, consequently, did not rise to gladden the earth. The theory of another hemisphere was heretical for a season, and Columbus was, in turn, taxed with weakening the validity of scripture. Cuvier, in like manner, was treated as the antagonist of Moses; and Gall was accused of leading his followers to a belief in the

coarsest materialism. And thus it went on for a season, then trembled at the truth; and the truth itself lay hid behind the mists of a partial knowledge and discovery. Soon, however, a brighter state of things came on. Profounder researches dispelled the anxiety of the timid, faith and science were not found incompatible." This is a somewhat startling assertion; and one would be glad to learn what those "profound researches" are which have charmed away the materialism of Gall, and reconciled the facts of geology, and astronomy, and chemistry, to the scripture accounts. Mr. Sandby's report is, however, sufficient proof of the evil to science resulting from an ignorant belief in supernatural causes, and of interruptions to the eternal rule and laws of nature. Is not the very fact of his writing a book to show that the blessings of mesmerism are the "gift of God," and not of the devil, sufficient proof of the still existing and inveterate opposition of religious fancies to the facts of nature — and that, "in short," as Bacon says, "you may find all access to any species of philosophy, however pure, intercepted by the ignorance of divines?" But what is true in the matter is this: that fact, always, in time, triumphs over fancy; and the religious world become reconciled to new inconsistencies in the faith of their childhood or adoption. When a certain priest was asked how he could reconcile his belief in transubstantiation, he replied, that he had swallowed the apple of Eve in his youth, and had found no difficulty in digesting any thing else. The savage who was told by the missionary that after his death he would have to meet his father in heaven, replied — "Meet my father in heaven! why, we ate him last week." I do not state this in ridicule, but in most solemn sadness. Men must either set up reason in the judgment seat, or be content to receive all things as from the authority of a Pope.

Men strain at a gnat and swallow a camel — Let them swallow the camel or reject the whole: for reason only admits authorities, says Bacon, as "counsels to advise, not as dictators to command." The scriptures cannot be reconciled with themselves; much less with nature. It seems to me, the errors of scripture consist in historical error, in scientific error, in moral error. — The accounts are full of false or exaggerated statements by enthusiasts and deceivers; facts became distorted by repetition, and by the coloring of existing superstitions, and men were deceived by words and myths — each of the Idols described by Bacon was in full operation. Supernatural causes were assigned for the commonest facts — and it was thought to be absolutely necessary to govern the multitude by imposing on them. Even Plato talks of administering untruth as a drug. There has always been a rule of terror: and terrors always produce phantoms before which the poor faculty of reason, developed in ignorance, become prostrate. Rulers encouraged the folly; and the folly became orthodox belief: and it then became the policy, as with Solon and many of the most worthy authorities, not to give the people what was most true and consequently best, but the best they were likely to receive; for established error is the worst of all tyrants: but to a certain extent of course this policy was wise, and essential in its place in progress. It was supposed, as it is still supposed, that foretelling events was a matter beyond nature. The prophets believed themselves inspired, as they do now. They dreamed dreams, and saw visions; and they were not then able to interpret their true nature, or separate the true insight or foresight from the false appearances, or recognize the true cause in their own abnormal or peculiar condition. It was so with the greatest minds. It was so with Christ. It was so with Socrates. It was so with Swendenborg. It was

clerical position: nor can my intelligent friend object to this argument against finality or limitation — for it is precisely what he has so ably urged against M'Neile; and it is what every discoverer in mesmerism has had to urge against the "human reason" so nicely defined by Bacon,— of churchmen and others. "Knowledge comes, but wisdom lingers;" nor does the history of the world's errors seem to help us much: yet how shallow all our knowledge! what depth in our ignorance! How little we know, and therefore can conceive, of the possible in nature, or what is the power of true faith! or rather of that power which, being developed, induces faith — for faith, of course, like will, is not a power, but only the final result and evidence of power — the evidence of a power or truth within us and within the nature of things. It is the conscious form of the intuitive sense. All mind phenomena are but the result and concomitant of power or action, an expression, so to speak — the fleeting form and evidence of existence and of the forces of nature; but a passage in time, and flowing away never to return, any more than the same beauty or form of the same rose can ever be again. The new spring brings a new birth of similar and beautiful roses out of the old materials. Mind is the last result — like the form of beauty. "Last, the bright consummate flower-spirit's odorous breath," is Milton's beautiful simile. But let us be patient, and wait with reverence upon nature — for it is the doing — the progress rather than any ultimate or full result, that is to be obtained. The world is but in its baby life; and we shall not live to see its manhood, when universal law and a true philosophy shall be recognized, and become the basis of men's actions; and all the false systems now existing will have passed away. In the mean time, I would say with Democritus, that "I would prefer the discovery of one of the causes of the works of nature

to the diadem of Persia;" and with Meric Casaubon, that "I meddle not with policy, but nature: nor with evil men so much, as the evil consequences of the ignorance of natural causes. My business shall be, as by example of all professions in all ages, to show how men have been prone upon some grounds of nature, producing some extraordinary, though not supernatural effects, really, not hypocritically, yet falsely and erroneously 'to deem themselves or their co-religionists inspired:' and my wish is, 'to dive into the dark mysteries of nature, for probable confirmation of natural operations falsely deemed supernatural.'" — *Treatise on Enthusiasm*, 1655, c. i. p. 4. See *Mr. Sandby's Account of Miracles and Mesmerism, Devotional Ecstasies, &c.* — *H. G. A.*

R. — (Page 181.)

"Spinoza in this," (his political treatise,) "as in his other writings, is more fearless than Hobbes; and though he sometimes may throw a light veil over his abjuration of moral and religious principle, it is frequently placed in a more prominent view than his English precursor in the same system had deemed it secure to advance. Yet, so slight is often the connection between theoretical tenets and human practice, that Spinoza bore the character of a virtuous and benevolent man. We do not know, indeed, how far he was placed in circumstances to put his fidelity to the test. In this treatise of Politics, especially in the broad assertion that good faith is only to be preserved so long as it is advantageous, he leaves Machiavel and

Hobbes at some distance, and may be reckoned the most phlegmatically impudent of the whole school." — *Hallam: Literature*, vol. iv. p. 362.

When Hallam speaks of the light veil which Spinoza and Hobbes, and others used, to conceal their real opinions, and save themselves from the ignorant fury of the religious world, he should remember that they, in sober honesty and the love of truth, took care that the veil was transparent enough to be seen through: while many who have called themselves philosophers have spent their lives in nursing their own reputation by flattering the prejudices of the world; not caring what becomes of the ship of the state so long as they save themselves in the cockboat of their own fortunes. Thus, many who are in high favor and esteem, are, in truth, but lying hypocrites, walking through life under a mask, put on according to the fashion of men's prejudices and superstitions in their time. Thus, instead of helping the world on, they only help to obstruct the way. Thus it is with many of our saintly philosophers, — wise in their own generation. What the next will think of them, time will show. — *H. G. A.*

S. — (Page 185.)

THE ACARUS CRŒSSII.

Letter from Mr. Crosse to H. Martineau.

"Madam, — Your communication of August the 3d is now before me. I shall endeavor to reply to your questions in such a manner as they deserve.

"Allow me, in the first place, to state, that I have not

the slightest objection to your dealing as you please with this answer of mine. You are welcome to publish it, if you think proper; or thrust it into the fire, where many of those kind commentators on some of my experiments would gladly have thrust me. It is the bounden duty of philosophical men not to reject or admit as fact any assertion wihout close and fair investigation. This would save a world of trouble, and be of the highest importance to the science concerned.

"Ever since I have enjoyed the faculty of thinking, two feelings, apparently somewhat opposed to each other, have been predominant in my mind; — the first exciting within me an ardent wish of knowing more; and the last causing a conviction, that the utmost extent of human knowledge is but comparative ignorance. Feeling as I have done, the whole of my life, — it is not likely that I should plume myself upon any imaginary successful result of a course of experiments, or that I should presume to lay down a theory upon so mystical, and perhaps unapproachable, a subject as the origin of animal life.

"As to the appearance of the acari, under long-continued electrical action, I have never, in thought, word, or deed, given any one a right to suppose that I considered them as a creation, or even as a formation from inorganic matter. To create, is to form a something out of a nothing. To annihilate, is to reduce that something to a nothing. Both of these, of course, can only be the attributes of the Almighty. In fact, I can assure you, most sacredly, that I have never dreamed of any theory sufficient to account for their appearance. I confess that I was not a little surprised, and am so still, and quite as much as I was, when the acari made their first appearance. Again, I have never claimed any merit as attached to these experiments. It was a matter of chance. I was looking

for siliceous formations, and animal matter appeared instead. The first publication of my original experiment took place entirely without my knowledge. Since that time, and surrounded by death and disease, I have fought my way in the different branches of the science which I so dearly love, and have endeavored to be somewhat better acquainted with a few of its mysteries. Now, suppose that a future son of science were to discover that certain novel arrangements should produce an effect quite contrary to all preconceived opinion, would this discovery, however vast it might be, humanly speaking, be such as to stir up in a mind properly constituted, an inferior sense of the omniscience of the Creator? It is really laughable to anticipate such a result, which could only be engendered in the brains of the enemies of all knowledge.

" In a great number of my experiments made by passing a long-continued current of electricity through various fluids, (and some of them were considered to be destructive to animal life,) acari have made their appearance, but never excepting on an *electrified surface, kept constantly moistened; or beneath the surface of an electrified fluid.* In some cases, these little animals have been produced *two inches below* the surface of a poisonous liquid. In one instance, they made their appearance upon the lower part of a small piece of quartz, plunged two inches deep into a glass vessel of fluo-silicic acid, or, in other words, into fluoric acid holding silica in solution. A current of electricity was passed through this fluid for a twelvemonth or more; and at the end of some months, *three* of these acari were visible on the piece of quartz which was kept negatively electrified. I have closely examined the progress of these insects. Their first appearance consists in a very minute whitish hemisphere

formed upon the surface of the electrified body ; — sometimes at the positive end, and sometimes at the negative ; sometimes between the two, or in the middle of the electrical current ; and sometimes upon all. In a few days, this speck enlarges and elongates vertically, and shoots out filaments of a whitish, wavy appearance, and easily seen through a lens of very low power. Then commences the first appearance of animal life. If a fine point be made to approach these filaments, they immediately shrink up and collapse, like zoöphytes upon moss ; but expand again sometime after the removal of the point. Some days afterwards, these filaments become legs and bristles, and a perfect acarus is the result, which finally detaches itself from its birthplace, and, if under a fluid, climbs up the electrified wire, and escapes from the vessel, and afterwards feeds either on the moisture on the outside of the vessel, or on paper or card, or other substance in its vicinity. If one of them be afterwards thrown into the fluid in which he was produced, he is immediately drowned. They are much annoyed by exposure to light, and require to be kept on a moist surface in a rather warm and dark place. They live for some months, but are destroyed by the first frost. I have noticed their formation in concentrated solutions of nitrate and sulphate of copper, and in various other fluids, but generally in silicate of potash, or other siliceous solutions, but never in arsenious solutions. In one experiment, (which was conducted with every possible caution,) the following result took place : I took black gunflints, made them red hot, threw them into water, dried and reduced them to powder. Of this powder I took one ounce, and mixed it with three ounces of carbonate of potash — fused the mixture in a crucible for five hours — poured the melted mass, which was a soluble transparent glass,

into a heated iron mortar — reduced it to a coarse powder, and, while hot, threw it into boiling distilled water, in which it was speedily and wholly dissolved. Whilst still hot, I poured it into a glass retort, the bulb of which was half filled with the solution: — this retort had just been washed out with hot alcohol, and was placed in a frame made for the purpose; and its neck was closely stopped with a glass stopper, ground to fit perfectly air tight. — The long end of the retort was dipped into a glass basin of fresh distilled mercury; and two wires of platinum, hermetically sealed, passed through the two opposite sides of the retort, and were immediately connected with the opposite poles of a weak volcanic battery, in constant action. The electric current acted directly on the solution of silicate of potash, and oxygen and hydrogen gases were evolved, which passed in a succession of bubbles out of the long end of the retort, and through the mercury in the glass basin.

"The apparatus was deposited on a shelf in a cupboard, in a dark subterranean cellar. Now, observe, first, — that the solution was considerably caustic: — next, that the portion of atmospheric air above the solution, and contained in the upper part of the glass retort, was speedily driven out by the evolution of the gases, so that the atmosphere of the retort was a compound of oxygen and hydrogen, and consequently an explosive compound: — thirdly, that all contact with atmospheric air was completely cut off; — yet at the expiration of 140 days, I plainly discovered by the light of a lamp, one fat acarus, actively crawling on the surface of the upper part of the bulb of the retort. At first I thought that it *must* be on the outside, and I passed my finger over the spot: but no, — it was on the inside, and visible for a considerable time. I kept this apparatus in action for upwards of a

twelvemonth, but did not detect any other acarus. I think it highly probable that others existed, but that they fell down, and were lost in the solution. The experiment I have not yet published; but it was most accurately made. My friend, Mr. Weekes of Sandwich, has obtained similar results with myself.

"As to what the opinion of scientific men may be on this matter, I know not. I have merely described the results I have met with; and I heartily wish that those who possess time and patience would institute a series of experiments on this interesting branch of science. Conflicting opinions have existed, as to whether the acarus developed under the above circumstances be of a new description or not. I know not whether this may be of any consequence, as it is very easy for so minute an animal to have escaped particular observation; and besides, I have observed a variety amongst the acari so produced; but this I leave to entomologists. I have never before heard of acari having been produced under a fluid; or of their ova throwing out filaments; nor have I ever observed any ova previous to, or during, electrization, except that the speck which throws out filaments be an ovum: but when a number of these insects, in a perfect state, congregate, ova are the result. I may now remark, that in several of these experiments, fungi have made their appearance; and, in some cases, have been followed by the birth of acari. In one instance, a crop of fungi was produced upon the upper end of a stick of oak charcoal, plunged into a solution of silicate of potash, kept negatively electrified for a considerable time; and covered by a bell glass inverted over it in a glass dish of mercury. The charcoal, before being used, was taken red hot from a fire. There is, evidently, a close connection between animal and vegetable life; but one thing is

necessary to be observed: that such experiments as those I have just touched on must be varied in every possible form, and repeated over and over again, with unflinching perseverance, and with the most sharp-sighted caution, in order to attain satisfactory results.

"In conclusion, I must remark, that in the course of these and other experiments, there is a considerable similitude between the first stages of the birth of acari, and of certain mineral crystallizations electrically produced. In many of them, more especially in the formation of sulphate of lime, or sulphate of strontia, its commencement is denoted by a whitish speck, — so it is in the birth of the acarus. This mineral speck enlarges and elongates vertically, — so it does with the acarus. Then the mineral throws out whitish filaments, — so does the acarus speck. So far it is difficult to detect the difference between the incipient mineral and the animal; but as these filaments become more definite in each — in the mineral they become rigid, shining, transparent, six-sided prisms; — in the animal, they are soft and waving filaments, and finally endowed with motion and life.

"I might add much more to the above sketch, but it would be then more fit for a pamphlet than for a letter.

"ANDREW CROSSE."

"However rigid were the conditions in any case adopted, thus much is certain; that the acari have invariably appeared in the several solutions under electrical influences, while their absence has been as invariably remarked, in spite of the nicest scrutiny, in all negative tests, provided to accompany the respective primary experiments." — *W. H. Weekes: Letter to the Author of Vestiges of Creation.*

T. — (Page 208.)

Speaking in his noble tract upon education of young nen when they quit the University, Hobbes says, "They iow, when poverty or youthful years call them importunely their several ways, and hasten them with the sway of friends either to an ambitious and mercenary, or ignorantly zealous divinity; some allured to the trade of the law, grounding their purposes not on the prudent and heavenly contemplation of justice and equity which was never taught them, but on the promising and pleasing thoughts of litigious terms, fat contentions, and flowing fees; others betake them to state affairs, with souls so unprincipled in virtue and true generous breeding, that flattery and court shifts, and tyrannous aphorisms, appear to them the highest points of wisdom. Others, lastly, of a more delicious and airy spirit, retire themselves, knowing no better, to the enjoyment of ease and luxury, living out their days in feast and jollity." — *Hobbes.*

"Nature, as it is, hath given us but a few sparks of understanding, which, by our vicious manners and opinions, we so effectually quench, that scarce the least glimpse of the light of nature appears; for there are in our minds innate principles of virtue, which, if they were suffered to grow, would themselves lead us to a happy life. But now, as soon as ever we come into the world, we are engaged in all manner of depravity and perverseness of opinions, so that we seem, together with our nurse's milk, to have sucked in errors: and, afterwards, when we are brought to our parents, we are delivered over to tutors, from whom we imbibe so many mistaken notions,

that truth is found to give way to vanity, and nature herself to yield to opinion." — *Cicero, on Grief of Mind.*

"Government should never found academies, for they serve more to oppress than to encourage genius. The unique method of making the arts and sciences flourish, is to allow every individual to teach what he thinks at his own risk and peril." — *Spinoza.*

Dr. Arnold taught a doctrine precisely similar to that taught by the reviled and persecuted Spinoza. Compare Arnold's introductory lectures on Modern History: Appendix to first lecture.

U. — (Page 213.)

"Authorities, I admit, are of little weight in matters of science, in the face of positive facts: but it is necessary that these facts exist, that they have been subjected to severe examination, that they have been skilfully grouped with a view to extract from them the truth they conceal. He who ventures to treat, *à priori*, a fact as absurd, wants prudence. He has not reflected on the numerous errors he would have committed in regard to many modern discoveries. I ask for example if there can be any thing in the world more *bizarre*, more incredible, more inadmissible, than the discovery of Dr. Jenner! Well! the *bizarre*, the incredible, the inadmissible, is found to be true; and the preservative against the small-pox is by unanimous consent to be sought for in the little postule that appears in the udder of the cow." — *Arago.*

"And like as the West Indies had never been discovered, if the use of the mariner's needle had not been first discovered, though the one be vast regions and the other a small motion; so it cannot be found strange if sciences be no further discovered, if the art itself of invention and discovery hath been passed over." — *Bacon: Advancement of Learning.*

"Whilst men regard the property inherent in matter of being self-sustained, and not dropping into annihilation or dissolution, as an adamantine necessity in nature, they ought to permit no method to escape them of torturing and agitating matter if they would detect and draw to light its ultimate workings and obstinately preserved secrets." — *Bacon: Thoughts on the Nature of Things.*

"But if any require at least particular promises, let him know that by that knowledge which is now in use, men are not skilled enough even for wishing. But what is of less moment, should any of the politicians, whose custom it is from personal calculations to estimate every thing, or from examples of like endeavors to form conjecture, presume to interfere his judgment in a matter of this sort, I would have told that ancient saying, '*Claudus in via, cursorem extra viam antevertet*,' and not to think about examples, since the matter is without example." — *Bacon: Interpretation of Nature.*

"Men see clearly, like owls in the night of their own notions, but in experience, as in daylight, they wink and are but half-sighted." — *Bacon*: *History of Life and Death.*

"Some impose upon the world that they believe that which they do not: others, more in number, make themselves believe that they believe, not being able to penetrate into what it is to believe." — *Montaigne.*

V. — (Page 225.)

"Those who frequently contemplate the entire subjection of every part of the animal frame to the laws of chemistry, and the numerous processes through which all the organs of the human body must pass after death, acquire habits of imagination unfavorable to a hope of an independent existence of the thinking principle, or of a renewed existence of the whole man. These facts have a more certain influence than any reasonings on the habitual convictions of men. Hence arises, in part, the prevalent incredulity of physicians. The doctrine of the resurrection could scarcely have arisen among a people who buried their dead.

"18th — Sunday. — I went to the funeral sermon. The principal part consisted of some arguments of the immortality of the soul. In the eloquence of Cicero, of Fenelon, and Addison, the reasons in behalf of this venerable and consolatory opinion had appeared strong and sound; but, in the preacher's statement, they shrunk into a mortifying state of meagreness, and contemplations passed in my mind which I should be almost afraid to communicate to any creature.

"19th. — In the necessary ascending progress of the understanding to divert the infinite perfect-Being of all resemblance to imperfection, he at length approaches a

very faint and imperfect personality. I acknowledge, indeed, that the heart has an equally inevitable descending progress; in which the divinity is more and more individualized, brought nearer, and made liker to ourselves, that he may be more the object of affection. But to confine myself to speculation; a person, commonly called an Atheist, might certainly feel the most ardent moral enthusiasm, or the warmest love of perfect virtue; he, consequently, has the feeling, of which devotion is a modification or another name. This perfect virtue he must often personify. How small is the difference, in pure speculation, between the evanescent individuality to which the reasonings of the philosophical Theist reduce or exalt the divinity, and the temporary mental reality into which the imagination of him who is called an Atheist brightens his personification of virtue!

"Let me apply the same mode of examination to the other elements of religion, the doctrine of a future state. The foundation of that doctrine is the desire that beings, capable of an indefinite progress in virtue and happiness, may accomplish the destiny which seems open to them, and the belief that the interruption of that noble progress by death is only apparent. The fear of hell, or the desire of reward for ourselves, may, like the fear of the gallows, prevent crimes; but, at most, it can only lead to virtue; it never can produce it. I leave below me those coarse, rude notions of religion which degrade it into a supplement to police and criminal law. All such representations are more practically atheistical, more derogatory from the grandeur of religious sentiment, than any speculative system called Atheism. When the mind is purified from these gross notions, it is evident that the belief of a future state can no longer rest on the merely selfish idea of preserving its own individuality. When we make a further

progress, it becomes indifferent whether the same individuals who now inhabit the universe, or others who do not yet exist, are to reach that superior degree of virtue and happiness of which human nature seems to be capable; the object of desire is the quantity of virtue and happiness — not the identical beings who are to act and enjoy. Even those who distinctly believe in the continued existence of their fellow-men, are unable to pursue their opinions through any considerable part of its consequences: the dissimilarity between Socrates at his death, and Socrates in a future state, ten thousand years after death, and ten thousand times wiser and better, is so very great, that to call these two beings by the same name is rather a consequence of the imperfection of language, than of exact views in philosophy. There is no practical identity. The Socrates of Elysium can feel no interest in recollecting what befell the Socrates at Athens. He is infinitely more removed from his former state than Newton was in this world from his infancy.

"Now the philosopher, who for his doubts is called an Atheist, may desire and believe the future progress of intelligent beings, though he may doubt whether the progress being made by the same individuals be either proved or very important. His feelings will scarcely differ at all, and his opinion very little, from him who is called a Theist. When I speak of a coincidence of feeling, I confine myself to those primary feelings which are the root of the opinion; for there are derivative feelings which arise out of these differences, rather in modes of thinking than in opinion, of the utmost importance in their operation on human life. That importance arises from the greater or less difficulty of maintaining the love of perfect virtue, and the desire of future progress, according to two different habits of thought. In this practical point, Theism has a great

superiority. The ideas are more definite. They more resemble the common objects of pursuit; they more easily enter the imagination and affect the feelings; and they mingle more naturally, as well as blend more completely, with all the active principles. The other manner of thinking, which presents qualities, rather than individuals, to the mind, is not adapted to excite any feelings in the immense majority of men. It will produce ardent feelings in very few, and stable sentiments, perhaps, scarcely in any individual educated in the present circumstances of the world. The difference is great, but it is almost entirely practical. Morality is usually said to depend upon religion; but this is said in that low sense in which outward conduct is considered morality. In that higher sense in which morality denotes sentiment, it is more exactly true to say, that religion depends on morality, and springs from it — virtue is not the conformity of outward actions to a rule; nor is religion the fear of punishment or the hope of reward. Virtue is the state of a just, prudent, benevolent, firm, and temperate mind. Religion is the whole of those sentiments which such a mind feels towards an infinitely perfect being.

"I am pleased with contemplations which trace piety to so pure and noble a source — which show that good men have not been able to differ so much from each other as they imagined; that, amidst all the deviations of the understanding, the beneficent necessity of their nature keeps alive the same sacred feelings; and that Turgot and Malesherbes, so full of love for the good and fair, had not apostatized from the true God of Socrates and Jesus."— *Life of Mackintosh*, ii. 120–123.

W. —(Page 243.)

"A certain Queen, in some South Sea Island, I have read in Missionary books, had been converted to Christianity, did not any longer believe in the old gods. She assembled her people, said to them, 'My faithful people, the gods do *not* dwell in that burning mountain in the centre of our isle. That is not God, no, that is a common burning mountain; mere culinary fire burning under peculiar circumstances. See, I will walk before you to that burning mountain; will empty my wash bowl into it, cast my slipper over it, defy it to the uttermost, and stand the consequences!' She walked accordingly, this South Sea heroine, nerved to the sticking-place; her people following in pale horror and expectancy: she did her experiment;—and, I am told, they have truer notions of the gods in that island ever since! Experiment which it is now very easy to *repeat*, and very needless. Honor to the brave, who deliver us from phantom dynasties in South Sea islands, and in North!" — *Carlyle's Cromwell*, i. 444.

X. — (Page 250.)

We shall soon be exhibiting our fine fabrics to all the world; but of the fabric of the mind we know nothing: and, stranger still to say, we don't seem to care to know. We follow our crude notions and blind instincts, like a very worm that crawls, rather than walk erect in true manhood and the light of knowledge. We neglect the

true prerogative of man, to know himself, and to guide himself by that knowledge. We try to frighten men to good behavior, and endeavor to patch up grievances, and the last thing we appeal to is the law and authority of Nature herself. As knowledge advances, step by step, the world falls back upon precedents and parchments, endeavoring to shut out the light, and ruin the philosophy, and the noblest benefactors of their race have been scoffed at in the streets, and hunted out of their country like poor Windsor, for his gas-lighting; who, escaping with his life, died in poverty abroad. It will be long, I fear, before there is any efficient and general system of training and education, and men fully recognize the fact that the interest of each is in the advance of the whole; and that the many are not to be sacrificed for the selfish aggrandizement of the few. I cannot tell you with what delight I read the following announcement in the *Times*, which should be printed in gold. "There appears, we rejoice to say, but little doubt that the recent reforms in the military economy have stood the test of experience. So far has discipline been unaffected by the practical abolition of corporal punishment, that it has reached a higher pitch than ever; and it has been observed, by careful comparison, that whereas a soldier once flogged was perpetually exposing himself to a repetition of the penalty, those subjected to the operation of less brutalizing discipline are rarely found offending again. The readiness to receive instruction is quite remarkable." After this, I trust the *Times* will cease to advocate, not only that "brutalizing" but devilish custom of capital punishments. I believe my old school, the Charter House, still disgraces itself by a brutal use of the rod. I am sorry to say, that I have ever found clergymen advocate harsh measures — in not sparing the rod — and by upholding capital punishment on the

authority of the Scriptures; and military men declaring the "brutalizing" discipline indispensable in the army. O, how sick I have felt to hear them declare opinions which I knew to be as false as they were brutal!

Y. — (Page 253.)

"This, then, is the office of the real priests of God, whether found on thrones, or in council chambers, in pulpits or professors' chairs, or merely at writing tables; to render more truly humane the human race around them. Whether for their reward thorns shall grow for them on earth, or palms in heaven, need concern them little. I, at least, no longer felt myself troubled with thoughts of what might be my fate after death. I had a living certainty of the providence of God, and that tranquillized me concerning all the rest.

"It was at this time I wrote the 'Yearning after the Invisible,' which expressed the joyful state of my feelings. I often smiled at the strange proofs of the immortality of the soul, which philosophers had discovered, and thought that pure, disinterested virtue would be an impossibility to us, if we possessed any absolutely irrefragable proof, any indubitable certainty on this point. I thought, like Petrons Pomponatus, an independent thinker of the sixteenth century, who, I may say, *en passant*, was one of my old favorites, 'a virtue which should depend on the fear of punishment, or the hope of reward in eternity, could be, at best, but a holy virtue, or, perhaps, only a kind of mercantile speculation.'" — *Life of Zschokke*, p. 134.

Z. — (Page 261.)

In recording some of those singular instances of persons living for weeks and months, and even for years, without food, cases similar to the one I had under my charge, and to that which is now existing near to Bath, and to the still more extraordinary instance of the Fakeer, in India, witnessed by Sir Claude Wade, Dr. Mason Good remarks, in his Book of Nature (Pub. 1820), that "Air or water, or either separately, may contain the rudimental materials of all the rest. We behold metallic stones, and of large magnitude, fall from the air; and we suppose them to be formed there; we behold plants suspended in the atmosphere, and still, year after year, thriving and blooming, and diffusing odors; we behold insects apparently sustained from the same source: and worms, fishes, and, occasionally, man himself, supported from the one or the other, or from both. *These are facts:* and as facts alone we must receive them; for we have, at present, no means of reasoning upon them. There are innumerable mysteries in matter, as well as in mind; and we are not yet acquainted with the nature of those elementary principles from which every compound proceeds, and to which every thing is reducible. We are equally ignorant of their shapes, their weight, or their measure." And again, in reference to certain uncommon states of sleep and trance, both in the cases of man and other animals, he says, "These are extraordinary facts, and may be difficult to be comprehended: but they are facts nevertheless; and may be proved at any time, by any person." But all things are easily comprehended, when the conditions are ascertained; and Liebig thus gives us

"HOPES,"

"the time will come, although, perhaps, the present gen-

eration will barely live to see it, when a numerical expression for chemical formulæ shall have been obtained for the measurement of all the normal energies of the organism, and of the deviations in the functions of individual parts, by means of the corresponding deviations in the composition of the matter of which these parts consist, or of the products to which they give rise." — *Chemistry and Physics in relation to Physiology and Pathology.*

A A. — (Page 287.)

THE PREACHING EPIDEMIC OF SWEDEN.

By Mary Howitt.

"One of the most singular psychological phenomena of the present day has occurred in Sweden; and as but little, if any thing, is known of it by the British public at large, I think it will be interesting to the readers of this Journal to lay before them such information as I have been able to obtain on the subject.

"That portion of southern Sweden formerly called Smaland, and which now comprises the provinces of Kalmar, Wexio, and Jönkoppin, though one of the poorest parts of the kingdom, is inhabited by a laborious and contented people. Their lot, which is one of extreme suffering and privation, is rendered endurable to them by their natural simplicity of character and deep religious feeling. About sixty years ago, a very strong religious movement took place among them, which, for political reasons, or otherwise, government thought fit to put a

violent stop to, and with great difficulty it was done. Whether there be a predisposition among these simple but earnest people for religious excitement, we cannot tell; but certain it is, that at the commencement of 1842 the singular phenomenon of which we are about to speak made its appearance among them; and from its rapid spread, and apparently contagious character, and from the peculiar nature of its manifestations, it was popularly called the Preaching Epidemic.

"Dr. J. A. Butsch, Bishop of Skara, in Westgöthland, wrote a long letter on this subject to Dr. C. F. Wingard, Archbishop of Upsala, and Primate of all Sweden, which letter is considered so perfectly authority on the matter, that it is published in an appendix to Archbishop Wingard's 'Review of the Church of Christ,' an excellent little work, which has been translated into English by G. W. Carlson, Chaplain to the Swedish Embassy in London, a gentleman of great erudition and accomplishments. To this letter we shall have frequent occasion to refer.

"The reader will naturally ask, as the bishop himself does, what is the Preaching Epidemic? What it really was, nobody as yet has been able to say. Among the peasantry the most general belief was, that it was an immediate Divine miracle, in order to bestow grace on such as were afflicted with the disease; and as a means of warning and exhortation to those who saw and heard the patients. Among others, somewhat above the class of peasants, many denied altogether the existence of the disease, declaring the whole to be either intentional deception in the desire of gain and notoriety; or else self-delusion, produced partly by an overstrained religious feeling, or by that passion of imitation which is common to the human mind. The bishop himself was of opinion that it was a disease, originally physical, but affecting the

mind in a peculiar manner. He arrived at this conclusion by attentively studying the phenomenon itself. At all events, bodily sickness was an ingredient in it, as was proved from the fact that, although every one affected by it, in describing the commencement of their state, mentioned a spiritual excitement as its original cause, close examination proved that an internal bodily disorder, attended by pain, had preceded or accompanied this excitement. Besides, there were persons who, against their own will, were affected by the quaking fits, which were one of its most striking early outward symptoms, without any previous religious excitement; and these, when subjected to medical treatment, soon recovered.

"The bishop must be a bold man, and not afraid of ridicule; for, though writing to an archbishop, he says that though he will not give the disease a name, still he will venture to express an opinion; which opinion is, that the disease corresponds very much with what he has heard and read respecting the effects of animal magnetism. He says that he carefully studied the effect of sulphur and the magnet upon several sick persons, and found the symptoms of the Preaching Epidemic to correspond with the effect of animal magnetism, as given in Kluge's '*Versuch einer Darstellung des Animalischen Magnetismus als Heilmittel.*' In both cases there was an increase of activity of the nervous and muscular system; and, further, frequent heaviness in the head, heat at the pit of the stomach, prickling sensation in the extremities, convulsions and quakings; and, finally, the falling, frequently with a deep groan, into a profound fainting fit or trance. In this trance, the patient was in so perfect a state of insensibility to outward impressions, that the loudest noise or sound would not awaken him, nor would he feel a needle thrust deeply into his body. Mostly, however,

during this trance, he would hear questions addressed to him, and reply to them; and, which was extraordinary, invariably in these replies applied to every one the pronoun *thou*. The power of speech, too, in this state, was that of great eloquence, lively declamation, and the command of much purer language than was usual, or apparently possible, for him in his natural state. The invariable assertions of all the patients, when in this state, were, that they were exceedingly well, and that they had never been so happy before; they declared that the words they spoke were given to them by some one else, who spoke by them. Their disposition of mind was pious and calm; they seemed predisposed for visions and predilections. Like the early Quakers, they had an aversion to certain words and phrases, and testified in their preaching against 'places of amusement, gaming, excess in drinking,' May-pole festivities, gay clothing, and the crooked combs which the peasant women wear in their hair, and which, no doubt, were objects of vanity and display.

"There was in some families a greater liability to this strange influence than in others; it was greater also in children and females than in grown-up people and men; and amongst men, those of a sanguine, choleric temperament are most susceptible. The patients invariably showed a strong desire to be together, and seemed to feel a sort of attraction, or spiritual affinity, to each other. In places of worship, they would all sit together; and it was remarked that when a person afflicted with the Preaching Epidemic was questioned about the disease in himself individually, he always gave his answer on behalf of them all, and thus said '*we*' where the inquirer naturally expected '*I*.'

"From these facts the learned bishop infers that the

Preaching Epidemic belonged to that class of operations which have been referred to animal magnetism. He says that, whatever may be the cause of this singular agency or influence, no doubt exists of its always producing a religious state of mind, which was strengthened by the apparently miraculous operations from within. He goes then into the question, whether the religious impression produced be in accordance with the established notions of the operations of 'grace on the heart,' and decides this not to be the case, because 'the excited person, immediately after he begins to quake, experiences an unspeakable peace, joy, and blessedness, not on account of newborn faith through atoning grace, but by a certain immediate and miraculous influence from God.' These are the bishop's own words. But with the polemical question we have nothing to do. However, the bishop goes on to say, that, 'whatever the origin of the disease may be, it characterizes itself by Christian language, and makes its appearance with many truly Christian thoughts and feelings;' and that, 'probably, the disease has universally met with something Christian, previously implanted in the heart, to which it has, in an exciting way, allied itself.'

"With respect to the conduct and conversation of the patients, during the time of their seizure, he says he never saw any thing which was improper, although many strange rumors to the contrary were circulated and believed, to the great disadvantage of the poor people themselves. In the province of Elfsborg, where the disease prevailed to a great extent, bands of children and young people under its influence went about singing what are called Zion's hymns, the effect of which was singularly striking, and even affecting. He says that to give a complete and detailed description of the nature of the disease would be

difficult, 'because, like animal magnetism,' — we use his own words — 'it seems to be infinite in its modification and form.' In the above-mentioned province of Elfsborg, it was often said, 'Such and such a person has begun to quake, but he has not as yet dropped down, nor has seen visions, nor has preached.'

"This quaking, of which so much is said, appears to have been the first outward sign of the influence; the inward vision and the preaching being its consummation; though when this consummation was reached, the fit mostly commenced by the same sign. Nevertheless, in some patients the quaking decreased in proportion to the strength which the disease gained. These quakings also seem to have come on at the mention of certain words, the introduction of certain ideas, or the proximity of certain persons or things, which in some mysterious manner appeared inimical or unholy to the patient. Sometimes, also, those very words and things which at first affected the patient ceased to do so as he advanced to the higher stages of the disease; and other words or things, which hitherto had produced no effect, began to agitate him in the same way. One of the patients explained this circumstance thus — that according as his spiritual being advanced upward, 'he found that there existed in himself, and in the world, many things which were worse than that which previously he had considered as the worst.' In some cases the patients were violently affected by the simple words, 'yes,' and 'no;' the latter word in particular was most painful and repulsive to them, and has frequently been described by them as 'one of the worst demons, tied with the chains of darkness in the deepest abyss.' It was remarked also that they frequently acted as if they had a strong temptation to speak falsehood, or to say more than they were 'at liberty to

say.' They would therefore exhort each other to speak the truth; and so frequently answered dubiously, and even said they did not know, when a contrary answer might have been confidently expected, that an unpleasant impression was frequently produced on the mind of the hearer; and some persons imbibed from this very circumstance unfavorable ideas of their truthfulness; when, in fact, this very caution and hesitation was a peculiarity of the disease.

"In the province of Skaraborg, the bishop says he has seen several persons fall at once into the trance, without any preparatory symptom. In the province of Elfsborg, the patients preached with their eyes open, and standing; whilst in his own province of Skaraborg, he himself saw and heard them preaching in a recumbent posture, and with closed eyes, and altogether, as far as he could discover, in a state of perfect insensibility to outward impressions. He gives an account of three preaching girls, in the parish of Warnham, of ages varying from eight to twelve. This account, but principally as relates to one of them, we will lay before the reader.

"It was shortly before the Christmas of 1842, when he went, together with a respectable farmer of the neighborhood, the Rev. Mr. Linqvist, and the Rev. Mr. Smedmark, to the cottage where a child lived, who, by all accounts, had advanced to the highest stage of the disease. Many persons, besides himself and his friends, were present. As regards all the three children, he says that, for their age, as is generally the case in Sweden, they were tolerably well informed on religious matters, and could read well. They were naturally of good disposition, and now, since they had been subject to the disease, were remarkable for their gentleness and quiet demeanor. Their manners were simple, as those of peasant children;

but, being bashful and timid, were not inclined to give much description of their feelings and experience; still, from the few words they spoke, it was evident that, like the rest of the peasantry and their own relatives, they considered it a divine influence, but still asserted that they knew not exactly what to think either of themselves or their situations. When in the trance, they declared that they were exceedingly well; that they never had been so cheerful, or felt so much pleasure before. On being awoke, however, they complained, sometimes even with tears, of weakness in the limbs, pain in the chest, headache, &c.

"In the particular case of the one child to which we have referred, the symptoms were precisely the same: there came on, in the first place, a violent trembling or quaking of the limbs, and she fell backwards with so much violence as to give the spectator a most painful sensation — but no apparent injury ensued. The patient was now in the trance, or state of total unconsciousness, and this trance, which lasted several hours, divided itself into two stages, acts, or scenes, totally different in character. In the first place, she rose up violently, and all her actions were of a rapid and violent character. She caught at the hands of the people round her; some she instantly flung aside, as if the effect produced by them was repugnant to her; others she held gently, patted, and rubbed softly: and these the people called 'good hands.' Sometimes she made signs, as if she were pouring out something, which she appeared to drink; and it was said by her father and another man present, that she could detect any one in the company who had been dram-drinking; and she would in this way represent every glass he had taken. She went through — for what purpose it seems impossible to say — the operation of loading, pre-

senting, and firing a gun, and performed most dramatically a pugilistic combat, in which she alone sustained and represented the action of both parties; she likewise acted the part of a person dressing; and what rendered all this most extraordinary was, that, though she was but a simple, bashful, peasant child, clad in her peasant's dress — a sheepskin jacket — yet all her actions and movements were free, and full of the most dramatic effect: powerful and vigorous when representing manly action, and so indescribably graceful and easy, and full of sentiment, when personating female occupations, as to amaze the more cultivated spectators; and, as the bishop says, to be 'far more like the motions of an image in a dream than a creature of flesh and blood.' Another circumstance is peculiar: although these children differed from each other in their natural state, yet, while under the influence of the disease, their countenances became so similar as greatly to resemble each other.

"To return now to the child who had advanced into the second stage of the trance; this was characterized by a beautiful calmness and quietness of demeanor and countenance; and with her arms folded meekly on her breast, she began to preach. Her manner in speaking was that of the purest oratory; her tones were earnest and solemn, and the language of that high spiritual character which, when awake, it would have been impossible for her to use.

"The little discourse ran somewhat as follows, for the bishop noted it down on his return home: —

"'My friends, let us turn from the evil of our ways; let us, my friends! The Savior wishes it. Think how pleasant it would be to come to him; and if we would we might. He does not desire that any one should perish: from the lowest depths of hell all may be saved, and come to Him. How pleasant it will be to come to

Him; to receive our wedding garments, and sit down with Him. O, how pleasant that will be!

"'But if we will not turn to Him, we commit a great sin, and grieve him. Think, if he meet us with angry looks; think, if he bid us go to the left side! to the place of darkness, where we are separated from him! Knock gently, knock gently, my friends, and he will certainly open to you.

"'Then let us now, my dear friends, raise a sigh — a good sigh — which shall penetrate through the clouds to the Savior! Let us go in the narrow way; let us go in the thorny path! Will you not go there? Then I will go there by myself alone; but go you also, and do not think that it is painful! It is not painful, if we only go to the Savior! And though I am young, and my words are those of a child, yet you must believe them. Although they are the words of a child, they are meant for your well being! For God's sake, believe them, dear friends!'

"Such were some of the words of the child, who, in this extraordinary state, had something saintlike in her appearance. Her utterance was soft and clear; not a word was retracted or repeated: and her voice, which in her waking state had a peculiar hoarseness, had now a wonderful brilliancy and clearness of tone, which produced great effect. The whole assembly observed the deepest silence, and many wept.

"These children, during all the time they were subject to this influence, had, as the parents stated, tolerably good appetites, although they were particular as to the food they ate, taking, by preference, milk and fruit, especially dried apples and cherries, of which it was necessary for the parents to keep a good stock.

"The bishop tells us that these children were cured by

medicines which he himself procured for them. The disease, according to his account, was frequently cured thus, though generally in its earlier stages. He does not any where state that death was the consequence of it; though he says that the patient sometimes foretold his own death. He tells us that many of the 'quaking people' were taken to the hospitals, and on their arrival there were found to be free from any symptom of the disease whatever; but scarcely had they returned home, when it again appeared in its full force. Many individuals also, by means of a firm will and a faithful endeavor to counteract it, succeeded in doing so. Others, on the contrary, from their belief of the disease being of a divine character, became predisposed for the contagion, both bodily and mentally; and thus, being attacked, helped to make it worse by their own superstition and submission to it.

"He concludes by saying, that as the phenemenon in question lay out of the sphere of human knowledge and experience, its extraordinary and miraculous character struck the mind with awe, which produced a very general religious movement among the perfectly healthy portion of the community. The consequence of this has been to send multitudes of persons to the churches and meeting-houses, who otherwise would never have gone there; and in many instances it has effected the most vital change in life and sentiments. Many a one has thus become a diligent reader of the Scriptures, and has been weaned from drunkenness and other vices; and showy dresses, crooked combs, dancing, and the much-abhorred May-pole merriment, in many parts, have fallen into disuse. The bishop himself saw by the roadside a May-pole which had been cut down from this cause; and he also knew a poor man who gained his livelihood by fiddling, who burnt his violin, that it might not be a cause of sin to himself or

others. How like is this to many a passage in the books of the early Quakers!

"In the province of Skaraborg alone, where the disease did not prevail so generally as in other parts, the number of persons affected by it amounted, in 1843, to from two to three thousand; and in this province many healthy people, particularly boys, gave themselves out as belonging to this class, and rambled from place to place, making religious harangues, and thus gaining a good livelihood. These impostors were often mistaken for the preaching-diseased, and through their means honest afflicted persons were brought into discredit, and often made to suffer.

"As in the case of the Bishop of Skara, the clergy, throughout the districts where the disease prevailed, used all the means in their power to put a stop to it, but in vain; the governors of the provinces then interfered. Medical men were sent out; many of the patients placed in hospitals, and others were attended at home; and by the end of 1843, the disease had almost ceased to exist. Nothing of the kind seems to prevail at present: but as I am informed by a Swedish clergyman, the good effect produced by it on the minds of many an otherwise hardened sinner, remains to testify of its truth and reality, although no one, whether learned in the science of physical or spiritual life, can yet explain the cause and nature of this extraordinary mental phenomenon." — *Howitt's Journal.*

A dancing mania extended throughout the whole of Germany in 1374. The "sufferers" neither saw nor heard, being insensible to external impressions through the senses, but were haunted by visions, their fancies conjuring up spirits, whose names they shrieked out; and

some of them afterwards asserted that they felt as if they had been immersed in a stream of blood, which obliged them to leap so high: others, during the paroxysm, saw the heavens open and the Savior enthroned with the Virgin Mary, according as the religious notions of the age were strangely and variously reflected in their imaginations.

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